

Y
JAG NUP
4/12

R&DP-20-1(1/68)

NAVAVNSAFECEN MISHAP CODE SHEET

(COMMON TO BOTH CARDS)

DATE: 11 JUN 1968
 REVIEWED: [Signature]
 APPROVED: [Signature]
 POSITIONED: [Signature]
 VERIFIED: [Signature]

13 JUN 1968

CARD 1

RECORD IDENTIFICATION											Source	Don't Count	Enemy Action	Aircraft Model							Model Code	AIRCRAFT BUREAU NUMBER	Reporting Custodian	Type Duty	Major Command	Time of Mishap															
Date			Type Report	Log Line Number	Aircraft Number	Mission Modif.	Basic Mission	Design Number	Series Symbol	CONDITION				LOCAL TIME																											
Cal. Yr.	Mo.	Day																																							
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
68	04	17									1																														
											Location							FAC. RWY DESCRIP.				FAC. SHIP DESCRIP.				Trans. Code	Card Number														
Acct. Dmg.	Acft. Dmg.	Acct. Inj.	Acft. Inj.	Hull Number	Kind of Flight	Clearance	NAME CODE		Bearing From	Dist. From	Distance	Area	Runway Heading	Length	WAS DUTY RWY USED?	Ship Type	Ship Course	Ship Speed	LOC'N		Initial Contact	Final Rest																			
42	43	44	45				46	47	48	49	50	51	52	53	54	55	56	57	58	59			60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78

CARD 2

RELATIVE WIND		Alt. of Emergency		Acft. Gross Weight	Fiscal Year	Fleets and Maws.																																			
Direction	Velocity	Density Altitude	Above Terrain				Pressure Altitude																																		
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49				
		PROPERTY DAMAGE COST		Aircraft Injury Summary																																					
		Gov't.	Non Gov't.	Total Occupants This Acft.	TOTAL INJURIES "A" "U" "L"								Trans. Code	Card Number	AIRCRAFT																										
					Navy		Non Navy		Navy		Non Navy				Navy		Non Navy		OF																						
50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80											

AIRCRAFT 1 OF 1

CODE SHEET 1 OF 13

22-11 JUL 1968
 CLOSED

NAVAVNSAFECEN MISHAP CODE SHEET

(COMMON TO BOTH CARDS)

CODED: H REVIEWED: _____ LOGGED: _____ PUNCHED: _____ VERIFIED: _____

CARD 11

RECORD IDENTIFICATION											Controlling LSO's Carrier Pass Description																														
Date						Type Report	Log Line Number	Aircraft Number	Start							Middle							In-Close							Ramp											
Cal. Yr.	Mo.	Day							Alt.	Speed	Speed Modif.	Line-Up	Line-Up Modif.	Power	Nose Position	Alt.	Speed	Speed Modif.	Line-Up	Line-Up Modif.	Power	Nose Position	Alt.	Speed	Speed Modif.	Line-Up	Line-Up Modif.	Power	Nose Position	Alt.	Speed	Speed Modif.	Line-Up	Line-Up Modif.	Power	Nose Position					
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39			

CLCPD (cont'd)											Trans. Code	Card Number		
TOUCH-DOWN														
Alt.	Speed	Speed Modif.	Line-Up	Line-Up Modif.	Power	Nose Position								
40	41	42	43	44	45	46	47	48	49	50	77	78	79	80

CARD 12

12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	Rank/Rate	Br. of Service	Age	Yrs. D.N.A.	Status	Position	Inj. to Indiv.	Abandon A/C	Trans. Code	Card Number

AIRCRAFT 1 OF 1

CODE SHEET 5 OF 13

NAVAVNSAFECEN MISHAP CODE SHEET

(COMMON TO BOTH CARDS)

CODED: A REVIEWED: _____ LOGGED: _____ PUNCHED: _____ VERIFIED: _____

CARD 23

RECORD IDENTIFICATION											Time of Day		Rescue Vehicle		Rescue Vehicles				Rescue Vehicles Back-Up		Sea Cond.		Rescue Equip. Used																				
Date			Type Report	Log Line Number	Aircraft Number	CARD CODE	Mishap	Rescue Report	Rescue Locate	ACC/ABAN	Location	Duty	Model/Type	Model/Type	Model/Type	Model/Type	No. Personnel To Rescue	No. Personnel Rescued	Model/Type	Model/Type	Actual Water Temperature	Actual Air Temperature	Actual Sea Temperature	Wave Height	Wave Interval	Gen. Ws. Cond.	Wind Velocity (Knots)																
Cal. Yr.	Mo.	Day																																									
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40				
28	04	17									6	8	1	1	1	1	1	K	L	Q	Z								7	8													
RESCUE TEAM TRAIN'G	COMM EQUIP'T TECH	RETRIEV EQUIP/ TECH	RESCUE TEAM WORK P.	Rescue Site Topography	Res. Vehic. Dist. to Scene	Time Lapse Mishap To Alert	Alert Prob	Methods of Alert	Departure Delays	Person Sequence Number	Trans. Code	Card Number																															
41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80				
									A	B	C				E																												

CARD 24

CARD CODE	Time Lapse Alert to Locate	Prob. Enroute		Vehicle Failed To Reach Scene	Failure Reason	Time Lapse Locate to Reach	Primary	Locator Means		Prob. Locating	Survivors Signalling Problems	Rescue Problems				Rescue Problems																									
		Prob	Prob					Vehicle	Individual			Vehicle	Individual	Vehicle	Individual	Vehicle	Individual	Vehicle	Individual																						
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49				
6	9	15																																							
Rescue Problems				Rescue Problems				Rescue Close Out		Person Sequence Number	Trans. Code	Card Number																													
Vehicle	Individual	Vehicle	Individual	Vehicle	Individual	Vehicle	Individual																																		
50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80											

PERSONNEL 1 OF 1

AIRCRAFT 1 OF 1

CODE SHEET 12 OF 13

NAVAVNSAFECEN MISHAP CODE SHEET

(COMMON TO BOTH CARDS)

CODED: _____ REVIEWED: _____

LOGGED: _____

PUNCHED: _____

VERIFIED: _____

CARD 25

RECORD IDENTIFICATION											Survivor's																													
Date						Type Report	Log Line Number	Aircraft Number	Problems			Condit.		Time Lapse Reach to Rescue	Time Lapse Mishap to Rescue Completion	Rescue Recommendation	CARD CODE 73	Weight	Height	Age	Sitting Height Nearest 1/4 Inch	Trunk Height Nearest 1/4 Inch	Functional Reach Nearest 1/4 Inch																	
Cal. Yr.	Mo.	Day																																						
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
2	8	0	4	1	7	1	0	4	0	1					A	F	0	0	1	5			7	3	1	4	3	2	9	2	7	3	2	3	2	2	3	2		

Buttock Lines Nearest 1/4 Inch	Leg Length Nearest 1/4 Inch	Bidefold Nearest 1/4 Inch	CARD CODE 74	Supervisory Factors		Pre-Flight Factors					Experience Trag. Factors				Person Sequence Number	Trans. Codes	Card Number																							
				Role of Indiv. in Cause	Inadequate Briefing	ORD/LIFT ON FLT BY CAP	Poor Crew Coordination	Other	Faulty Flight Plan	Faulty A/C Pre-Flight	Faulty Prep. Pers. Equip.	Harried	Departure Delayed	Inadequate Departure				Wk. Analysis	Other	Inadequate Transition	LIMITED TOTAL EXPERIENCE	LIMIT RECENT EXPERIENCE	FAIL TO USE ACCEPT PROC.	Other																
42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80		
2	2	2	4	1	3			1	6	2	7	4																												

CARD 26

Design Factors						Communication Problems					Environmental Factors						Psycho Physiological Factors																							
Inst./Controls Location of	Inst./Controls Failure of	Inst./Controls COCKPIT LIGHTING	Runway Lighting	Other A/C	PERSONAL EQU INTERFERENCE	WORK SPACE INCOMPAT. W/MAN	Other	MISINTERPRET COMM	DISRUPTED COMM	Language Barrier	Noise Interference	Other	ACCELERATION FOR FLIGHT	DECOMPRESSION	Vibration	Glare	Smoke Fumes	Heat	Cold	Wind Blast	Wx Haze Dark	Icing Wind	Low Fog	DUST/WINDS	SMOKE	Wx OTHER THAN VISIBILITY	Other	CARD CODE 75	Food Poisoning	Motion Sickness	Other Acute Illness	OTH PRE EXIST DISEASE/DEFECT	Grp "Homelitis"	Hangover	Sleep Deprivation	FATIGUE, OTHER	Missed Meals			
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49			

Psycho Physiological Factors (cont'd)											Person Sequence Number	Trans. Codes	Card Number																											
DRUGS PRESCR MEDICAL DI.	Drugs, Other	Alcohol	Visual Illusions	HALLUCINATIONS	UNCONSCIOUSNESS	DISORIENTAT ION VERTIGO	Hypoxia	Hyper-Ventilation	Dysbarism	CO Poisoning				Boredom	Inattention	Channelized Attention	Distraction	PREOCCUPATION	EXCESSIVE MOT ION TO SUC	Over Confidence	Lack of Self-Confidence	LACK OF CONF IDENCE IN EQUIP	Apprehension	Panic	Other															
50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80										

PERSONNEL	1	OF	1
AIRCRAFT	1	OF	1

CODE SHEET	11	OF	13
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NAVAVNSAFECEN MISHAP CODE SHEET

(COMMON TO BOTH CARDS)

CODED: _____ REVIEWED: _____ LOGGED: _____ PUNCHED: _____ VERIFIED: _____

CARD 29

RECORD IDENTIFICATION											Other Factors To Be Considered																Physical Defects Post Crash Exam.																	
Date						Type Report					Other Factors To Be Considered																Physical Defects Post Crash Exam.																	
Cal. Yr.	Mo.	Day	Type Report			Log Line Number	Aircraft Number	HABIT INVERT	WRONG CONT.	CONUS OF	COMPT. OTHER	Misread Instruments	MISINTERPRET INSTRUMENTS	MISLED BY	FAUL INSTRUM.	VIS. REST. BY	SOUP. STRUCT.	Tank Over-Saturation	Inadequate Good/Timing	Misjudged Speed/Dis.	WRONG COULS	OF ACTION	DELAY TAKING	NEG ACTION	VIOLATION OF FLT. DISCIP	Navigation Error	Inadvertent Operation	Other	CARD CODE 77	Disposition	Body Position	Direction Facing	VISUAL ACUITY OR NONE	Hearing	Cardio-Vascular	NEUROSCUL SKELETAL	Gastro-Intestinal	Respiratory	Urogenital	Other Abnormal REASON FOR GROUNDING				
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40					

CARD 30

Fractures											Dis-Locations											CARD CODE 79																			
Group A					Group B						Group A					Group B						CARD CODE 79																			
Cranial or None	Facial	Cervical	Thoracic	Lumbar	Sacral	Coccygeal	Shoulder Girdle	Rib	Pelvis or None	Upper Arm	Lower Arm	Hand Incl. Fingers	Upper Leg	Lower Leg	Foot Incl. Toes	Other Fractures	Jaw or None	Cervical Vertebral	Thoracic Vertebral	Lumbar Vertebral	Sacral Vertebral	Coccygeal Vertebral	Shoulder Girdle	Ribs	Pelvis	Shoulder or None	Elbow	Wrist	Hand Fingers	Hip	Knee	Ankle	Foot Toes	Other Dislocations	CARD CODE 79						
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49				

Amputations/Avulsions		Soft Tissue Injuries																CARD CODE 79																								
HEAD, NECK OR NONE		Group A								Group B								CARD CODE 79																								
Trunk	Upper Extrem.	Lower Extrem.	Other	LACERATIONS OR NONE	C.S.S. Head	Abrasions Head	LACERAT NECK	C.S.S. Neck	Abrasions Neck	LACERAT THORAX	C.S.S. Thorax	ABRASIONS THORAX	LACERAT UP EXTR	C.S.S. UP EXTREME	ABRASIONS UP EXTR	LACERAT LOW EXTR	C.S.S. LOW EXTREME	ABRASIONS LOW EXTR	Other S.T. Injuries	Aphyliation Suspected	Person Sequence Number	Trans. Code	Card Number																			
50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80												

PERSONNEL 1 OF 1

AIRCRAFT 1 OF 1

CODE SHEET 12 OF 13

REQUEST FOR DELETION OF RECORD
OR CODING MODIFICATION FORM

FROM: M/M DEPT. CS 11-6

DATE 6-28-68

TO: (1) CODING SECT _____
(2) REC. CONT. BRANCH _____
(3) ADPE DIV _____
(4) REC. CONT. BRANCH _____

TRANSACTION CODES

D-Deletion of the entire MISHAP Master Record (use only cc 1-11 and code D in cc 77).

M-Modifying contents of any Master Record field. Use "00" in Person Seq. No. field, if field to be modified is in the Gen. Data Sect. of the Master Record. Otherwise use Person Seq. No. for the individual for which the change is to be made. These changes must be in Person Seq. No. order.

IDENTIFICATION NO.										
YEAR	MONTH			DAY	TYPE REPT	LOG	NUMBER			AIRCRAFT NUMBER
01	02	03	04	05	06	07	08	09	10	11
68	1	7	17							

(b) (6)

A4A

FIELD NAME	CARD NUMBER	CARD COL. OF FLD, START ADD.	FIELD'S STARTING ADDRESS	PERSON SEQ. NUMBER	FIELD LENGTH	DATA TO BE INSERTED (LEFT JUSTIFIED)														TAPE REC DIV. NO.	TRANS. CODE																	
						12	13	14	15	16	17	18	19	20	21	22	23	24	25			26	27	28	29													
1 DIR CONT	44																																					
2																																						
3																																						

NOTE: (1) For deletions of codes in a given field, leave the "DATA TO BE INSERTED" field blank and use "TRANS CODE" M in cc 77.

(2) Only corrections applying to personnel in one TAPE RECORD DIV. may be shown on a single CHANGE REQUEST form.

ORIGINATORS SIGNATURE

(b) (6)

L.D. Number		680417104					1		N N N			1			14		A	
1 2	3 4	5 6	7	8 9	10		13	14	15	69	70	71	72	73	75 76	77	78	
Yr.	Mo.	Day	Typ	Log	Typ Brief		Narr	File	I. D.	CL	Orig. Use			Int-Cds	Trans. Code			

CLASS
CODE

TYPE BRIEFS

1 - Non-Class
2 - Conf

CODES
1 - GEN. MISHAP
2 - BIO-MED
3 - SAF-SURV
4 - PSYCHO

Common Fields to All Cards

CARD NO. CODED 26/10/68 REVIEWED _____ KEY PUNCHED _____ VERIFIED _____

11 12	16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68
01	ENG FAILURE/EJT. DURING BRD LEG OF SANDBLOWER IN CLB
02	THRU 8M FT @ 90% 4 280 KTS, PLT HEARD SMALL EXPLD WIT
03	H VIB. PWR REDUCED & WINGMAN INFORMED. ALL INST NORM
04	EXCEPT EST RISING. PWR REDUCED FROM 80% TO IDLE WITH
05	CONTINUED EST RISE. AIRCONDIT SECURED, SW TO MAN FUEL
06	CONT WITH SLOW APPLICATION PWR. EST TO 90 DEG. PWR RE
07	DUCED TO IDLE, FUELCONT TO PRI. EST XC-90 DEG. LOSS A
08	LT REQD 80% PWR TO REMAIN LEVEL. 3 MINUTES AFTER 1ST
09	EXPLD, A 2ND MILDER EXPLD WITH ENG UNWINDING. ALT CRT
10	TICAL, PLT EJT @ 4M FT. ACFT EXPLD ON IMPACT. PLT RES
11	QVE BY CIVILIANS. DIR REVL'D PROB FAT FAILURE 1ST STAG
12	E COMP RTR BLADET, INLET GUIDET HAWT CR CARRIGR RING FA
13	TURE. C/W INVES OF FAILED BLADES RULD ONE FIRST
14	ILURE. C/W INVEST OF FAILED BLADES RULD ONE FIRST STA
15	GE COMPRESSOR BLADE FAILED FROM FATIGUE,
16	
17	
18	
19	
20	
11 12	16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68

CARD NO.

I. D. Number	6	8	0	4	1	7	1	0	4	2	N	N	N	1				A
	1 2 Yr.	3 4 Mo.	5 6 Day	7 Typ	8 9 Log	10 Typ Brief	13 14 15 Narr File I. D.	69 CL	70 71 72 73 Orig. Use	75 76 Tot-Cds	77 78 Trans. Code							

Common Fields to All Cards

CLASS

CODE

1 - Non-Class
2 - Conf.

TYPE BRIEFS

CODES

1 - GEN. MISHAP
2 - BIO-MED
3 - SAF-SURV
4 - PSYCHO

CARD NO. CODED _____ REVIEWED _____ KEY PUNCHED _____ VERIFIED _____

11 12

0 1

16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68
PLT FORCED TO EJECT AT 4M IT DUE TO ENG FAIL. EJT WAS U

0 2

NEVENTFUL E-PLT SUSTAINED MINOR ABRASION ON GND IMPAC

0 3

T.

0 4

0 5

0 6

0 7

0 8

0 9

1 0

1 1

16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68

1 2

1 3

1 4

1 5

1 6

1 7

1 8

1 9

2 0

11 12

16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68

CARD NO.

NAVAL SAFETY CENTER
NAVAL AIR STATION
NORFOLK, VIRGINIA 23511

112/ras
Ser 791
11 July 1968

SPECIAL HANDLING REQUIRED IAW OPNAVINST 3750.6 SERIES
FOR OFFICIAL USE ONLY

From: Commander, Naval Safety Center
To: Commanding Officer, Naval Air Station, Los Alamitos
Subj: NAS Los Alamitos AAR ser 3-68A concerning A-4A BuNo 137828
accident occurring 17 April 1968, pilot (b) (6)

1. The subject report and all endorsements thereon have been reviewed. Commander, Naval Safety Center concurs with the comments and recommendations of the Aircraft Accident Board as modified by subsequent endorsers.
2. The cause of this accident has been recorded at the NAVSAFECEN indicating MATERIAL FAILURE (undetermined engine component) as the primary factor and MATERIAL FAILURE (compressor rotor blade) as a probable contributing factor. (b) (6)

By direction

Copy to:
NAVAIRSYSCOMHQ (AIR 09E) (2)
CNATRA
CNARESTRA
NAVPLANTREPO LONG BEACH
NAVAERORECOVFAC

FOR OFFICIAL USE ONLY

NAVAL SAFETY CENTER
NAVAL AIR STATION
NORFOLK, VIRGINIA 23511

Code 601/vt
27 May 1968

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6F

FOR OFFICIAL USE ONLY

NAVSAFECEN INVESTIGATION 72-68

Ref: (a) NAVAIREWORKFAC Alameda msg 012302Z May 68

1. INTRODUCTION

a. The Accident. A-4A, BUNO 137828, assigned to NAVAL AIR RESERVE TRAINING UNIT (NARTU), Los Alamitos, and piloted by LT (b) (6) USNR, (b) (6), attached to ATTACK SQUADRON SEVEN SEVEN THREE (VA-773) crashed and was destroyed in a mountainous area 295 degrees, 40 miles from Imperial Vortac, California at 1815(U) on 17 April 1968. The pilot ejected and received no injuries. There was minor damage to a mountainside in the Anza-Borrego State Park, Borrego Springs, California.

b. Synopsis of Flight. The aircraft departed NAS Los Alamitos at 1700(U) as the lead of a section on a scheduled low-level navigation flight. The flight completed the low altitude work and commenced a climb ten miles east of the Salton Sea and turned towards NAS Los Alamitos. Passing through 8000 feet the lead aircraft experienced a small explosion followed by a steady vibration. The exhaust gas temperature (EGT) climbed to 800°C. and the pilot reduced the power to idle. A switch to manual fuel was made without improving the situation. The RPM increased as the throttle was moved and the EGT climbed to 900°C. A second explosion was felt and the RPM began to unwind rapidly. The pilot transmitted his intention to abandon the aircraft and ejected at approximately 4000 feet of altitude. He was recovered by a park service agent shortly after landing and returned to his home station.

2. INVESTIGATION AND ANALYSIS

a. History

(1) Pilot. LT (b) (6) is 27 years old, was designated a Naval Aviator on 29 August 1963, and has a total of 1361 flight hours, 1117 hours of which are in jet aircraft, including 1046 hours in the A-4.

(2) Aircraft. A-4A, BUNO 137828, was accepted by the Navy on 30 April 1956 and had a total of 1864 flight hours. The third Progressive

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Enclosure (1)

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NAVSAFECEN INVESTIGATION 72-68

Aircraft Rework (PAR) was completed at the Naval Air Rework Facility (NAVAIREWORKFAC) Alameda on 10 October 1967 and a total of 517 flight hours had since been flown.

(3) Engine. The J65-W-16A engine, serial number 617041, was accepted by the Navy on 27 December 1960 and had operated a total of 1418 hours. A second overhaul was completed at NAVAIREWORKFAC Alameda on 23 December 1967 and had since operated 71 hours.

(4) Weather. Weather was not a factor in this accident.

b. Field Investigation

(1) The aircraft struck the side of a 2200 foot mountain at approximately the 2000 foot level in a nearly wings level 30 degree nose-down attitude.

(2) The engine showed evidence of very low RPM at impact.

(3) The entire compressor section showed high RPM rotational damage prior to impact.

(4) The hot section, turbine, and tailpipe all exhibited various degrees of metal fusion, and overtemperature damage.

(5) One first stage compressor rotor blade appeared to have failed from fatigue approximately two-thirds the distance up from the blade root.

c. Disassembly and Inspection Report. The engine and selected components were removed from the mountainside and further transported to NAVAIREWORKFAC Alameda for analysis. The results of the Priority Disassembly Inspection Report (PDIR), reference (a), confirmed the field findings with the following additional comments:

(1) All main engine bearings were in satisfactory condition and exhibited impact damage only.

(2) The report concluded that there were three possible causes for the inflight engine failure. They are:

(a) Fatigue failure of first stage compressor rotor blade.

(b) Inlet guide vane or carrier ring failure.

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NAVSAFECEN INVESTIGATION 72-68

(c) Foreign Object Damage (FOD).

(3) The first stage compressor rotor blade which indicated fatigue was forwarded to Curtis-Wright Corporation, Aircraft Division, requesting further metallurgical analysis to determine the cause for this mode of failure.

3. CONCLUSIONS. The most probable cause of this accident was a fatigue failure of a first stage compressor rotor blade, and subsequent ingestion of the failed segment. This damage created excessive operating temperatures resulting in engine seizure.

4. ACTION PENDING. Final determinations have not been received from Curtis-Wright Metallurgical Laboratory. Upon receipt, results will be forwarded to appropriate commands.

5. RECOMMENDATIONS. None.

Tafag
Ros

Distribution:
List "A"
CNO (OP-05F)

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6F

FOR OFFICIAL USE ONLY

DEPARTMENTAL COMMENTS FOR "CLOSE OUT" LETTER
ON ORIGINAL REVIEW

DEPARTMENTAL COMMENTS FOR "CLOSE OUT" LETTER
ON ORIGINAL REVIEW

- NOTE: 1. Negative report is required.
- NOTE: 2. Positive comments will be in a format suitable for inclusion in the "close out" letter.
- NOTE: 3. Attach additional sheets if more space is required.

M&M DEPARTMENT: *PROBABLY ANOTHER INLET GUIDE VANE CAME LOOSE, ALTHOUGH QW DID CONFIRM FATIGUE AREAS ON THE 1ST STAGE ROTOR BLADE. PAC 50 SHOULD CURE THE IGV. - 1ST STAGE BLADES OF (INCO718) TO REPLACE (WAD 8105) ARE BEING REPLACED ON AN EXHAUST STOCK BASIS.*

H

E.H. 221D

INITIAL/CODE

INITIAL/CODE

AERO-MED. DEPARTMENT: *No comments. 45/82*

pac/31

INITIAL/CODE

INITIAL/CODE

R&DP-27(4/68)

UNIT NAS LOS ALAMITOS
MODEL A4A
BUNO 13782P

AAR REVIEW ROUTING SHEET

ADVANCE ROUTING

PRI	DEPT	DATE IN	DATE OUT	INIT	INTER-DEPT ROUTING:
	M&M		6-28-68	V	
	AERO-MED	6-17-68			ecw P RAO

DEPARTMENT REPRESENTATIVES INITIALS FOR RECEIPT OF REPORTS:
REMARKS:

ORIGINAL ROUTING

DEADLINE DATE OUT OF NAVAVNSAFECEN 12 JUL 1968
EXTENSIONS

DEPT	DATE IN	DEPT DEADLINE	DATE OUT	INIT	INTER-DEPT ROUTING
AOA			7/8/68	ecw	

NAVAVNSAFECEN ENDORSEMENT ROUTING

PRI	DEPT	DATE IN	DATE OUT	INIT
1	R&DP			
2	M&M			
3	ADMIN			

ecw 7/16/68

ROUTING AFTER CLOSE-OUT

DEPT	DATE IN	DATE OUT	INIT	INTER-DEPT ROUTING
AERO-MED				

NOTES: 1. No person other than those assigned to the Records Control Branch will remove any part of this document from the folder.

2. Departments will be fully responsible and accountable for documents in their custody until checked back into Records Control Branch.

3. Any department desiring to retain this report longer than five (5) working days must notify Records Control Branch of their need for extension.

CURTISS-WRIGHT CORPORATION

ONE PASSAIC STREET - WOOD-RIDGE, NEW JERSEY 07075

180420Z

October 28, 1968

To: Chief, Defense Contract Administration
Services Office
Curtiss-Wright Corporation
Wood-Ridge, New Jersey 07075

In Turn To: Commander
Naval Air Systems Command
Navy Department
Washington, D. C. 20360

A4A 137825

Attention: AIR-4113

Subject: First Stage Compressor Rotor Blade Failure,
P/N 231817. J65-W16A Engine Model, S/N 617041.

Reference: (a) DCASO letter, F. Foley to CWC dated 5/8/68
(b) NARF Alameda Message R012302Z, Control No.
2614-68 (NAVAIRSYSCOMREPAC) dated 5/68
(c) CWC SDO No. 191479

2017452 apv

1. All of the first through third stage compressor rotor blades, IGV's and first to third stage compressor stator vanes recovered by the Navy from the crash of an A4A aircraft, were returned to this facility for failure investigation on the reference (c) SDO. These parts were received from NARTO NAS Los Alamitos. The total engine time was noted as 1417.8 hours with 70.6 hours TSO on the engine and equivalent part total time. References (a) and (b) requested that the results of our investigation on the subject failure be submitted as soon as practicable.

2. Inspection of the thirty first stage compressor rotor blades received at C-W revealed that two had fractured and four blades had cracked in the airfoil section 2 7/8" to 4 5/8" above the gas shelf. One blade fractured through the airfoil by a short time tensile mechanism. The failed and cracked blades exhibited multiple cracks in the airfoil on the concave airfoil surface about midway between the LE and TE and the companion blades were bent opposite the direction of rotation. One intact blade also showed cracks on the convex airfoil surface about midway between the LE and TE. Pentrex inspection of the companion first stage blades and the recovered second and third stage rotor blades did not reveal any other cracking. Similar inspection of the IGV's and the first and second stage compressor stator vanes did not show any cracks.

A4A 137825
6804171-

(2)

3. Fracture examination of the two failed 1st stage compressor rotor blades revealed fatigue progression nucleating from the concave airfoil surface midway between the LE and TE. One blade fractured by a short time tensile mechanism as a result of interference and F.O.D. associated with blade failure.

4. Microscopic examination of sections taken through the fatigue nuclei failed to reveal any metallurgical or processing defects such as a segregation or forging cracks.

5. The microstructure of failed, cracked and randomly selected uncracked blades were satisfactory for fully heat treated Inconel 718 (WAD 7802) material. The subject blades were satisfactory with respect to hardness (Required-Rc 39 min., Observed-Rc 41.5 to 42.5) and chemical composition for this WAD 7802 (Inconel 718) material.

6. Based on the satisfactory metallurgical quality of the submitted blades, the fact that a large number of blades were cracked and exhibited multiple cracks relatively high in the airfoil, the unusual location of the fatigue nuclei predominately on the concave airfoil surface midway between the LE & TE, and the low operating time of the blades, it is concluded that the subject blades had undergone abnormal operational and vibratory stresses and this was responsible for the observed cracking and failure.

7. The cause for the abnormal operating environment which resulted in blade failure and cracking could not be established, however, it is suggested that unusual circumstances such as foreign object ingestion was probably responsible. Stator vane loosening and interference with the first stage rotor is another possible cause.

8. It was reported that a wrench was found in the wreckage at the crash site, however, the prior location of this foreign object in the engine and the relationship to the subject failure was not known. The wrench was retained by USN safety center personnel for exhibit at the overhaul activity.

9. It should be noted that the integrity of Inconel 718 material for the first to third stage compressor rotor blade application is not compromised because of the abnormal circumstances involved in this incident.

(3)

10. Inasmuch as the listed components are all un-serviceable, they shall be scrapped at this facility in accordance with established procedures.

Respectfully,

CURTISS-WRIGHT CORPORATION

C. D. Thompson
C. D. Thompson
Supervisor, Product Support

SK:cam

SLIP ON 10 200
RECEIVED
MAY 19 1954

Code 015
4 JUN 1968

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST
3750.6 SERIES

THIRD ENDORSEMENT on CO, NAS Los Alamitos, accident, Ser
3-68A, concerning A-4A, BUNO 137828, of 17 Apr 1968, pilot
(b) (6)

From: Chief of Naval Air Training
To: Commander, Naval Aviation Safety Center

Subj: Aircraft accident report; forwarding of

1. Forwarded, concurring in the conclusions and recommend-
ations of Aircraft Accident Board and action indicated in
the first endorsement.

(b) (6)

Copy to:
CNARESTRA
COMNAVAIRSYSCOM (AIR 404)
CO, NAS Los Alamitos
COMNAVAIRSYSCOM (AIR 09E)
NAVAIRSYSCOM, NAVPLANTREPO, Long Beach
CO, NAVAERORECOVPAC, El Centro

By direction

ORIGINAL

Code 026
24 May 1968

SECOND ENDORSEMENT ON NAS Los Alamitos AAR 3-68A, involving
A-4A BUONO 137828, occurring 17 April 1968, Pilot (b) (6)

From: Chief of Naval Air Reserve Training
To: Commander, Naval Aviation Safety Center
Via: Chief of Naval Air Training

Subj: NAS Los Alamitos AAR 3-68A

1. Forwarded in accordance with paragraph 40, OPNAVINST 3750.6F.
2. Concur in the conclusions and recommendations of the Board and the corrective action indicated in the first endorsement.

(b) (6)

By direction

Copy to:
NAVAVNSAFECEN (2 Direct Airmail)
NAVAIRSYSCOM (AIR 09E)
NAS Los Alamitos
NAVPLANTREPO Long Beach
NAVAEROSPACERECFAC

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES.

ORIGINAL

ORIGINAL

AS:ra

11 May 1968

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

FIRST ENDORSEMENT on NAS Los Alamitos Aircraft Accident Report, serial 3-68A, concerning A-4A, BuNo 137828 accident occurring on 17 April 1968, pilot (b) (6)

From: Commanding Officer, Naval Air Station, Los Alamitos, CA 90720
To: Commander, Naval Aviation Safety Center, Naval Air Station, Norfolk, VA 90720
Via: (1) Chief of Naval Air Reserve Training
(2) Chief of Naval Air Training

Subj: Aircraft Accident Report; forwarding of

1. Forwarded, concurring with the conclusions and recommendations of the Aircraft Accident Board.

2. The Aircraft Maintenance Officer has been directed to ensure that an effective tool accountability program is maintained at NAS Los Alamitos.


L. D. RUTH

Copy to:
NAVAVNSAFECEN (2)
NAVAIRSYSCOM (AIR-404) (1)
CNATRA (1)
CNARESTRA (1)
NAVPLANTREPO LONG BEACH (1)
NAVAERORECFAC EL CENTRO (1)

PART I GENERAL

1. AIRCRAFT ACCIDENT BOARD APPOINTED BY CO, NAS LOS ALAMITOS	2. SERIAL NO. 3-09A	3. DTD (LOCAL) OF MISHAP 171915U APR 68	4. MODEL AIRCRAFT A-4A	5. BUREAU NUMBER 137828
6. TO: Commander, Naval Aviation Safety Center	9. LOCATION OF MISHAP 082 DEG. MAG 13 NM PM JULIAN VOR, CALIFORNIA		10. DAMAGE ALFA	
7. VIA: (a) CO, NAS LOS ALAMITOS (b) CNARS TRA (c) CNATRA	11. TIME OF DAY DAY	12. TIME IN FLIGHT 1:05	13. FLIGHT CODE 1AIM	
14. CLEARED FROM NAS LOS ALAMITOS TO NAS LOS ALAMITOS		15. TYPE CLEARANCE VPR	16. AIRSPEED 340 P	17. A/C HEIGHT 16,310
18. BRIEF DESCRIPTION OF MISHAP ENGINE FAILURE - PILOT EJECTED		19. ELEVATION AT TIME OF MISHAP S.L. 4000' TERRAIN 2600'		
20. LIST MODEL, MAKE, REPORTING QUESTION AND DAMAGE CLASSIFICATION OF ANY OTHER A/C INVOLVED (Complete OPNAV Form 3750-1 for each A/C) NONE				

SECTION B. CONTRIBUTING FACTORS		FACTOR		FACTOR		FACTOR	
1. PILOT ERROR IN TECHNIQUE/JUDGMENT		9. SERVICING PERSONNEL		17. WEATHER			
2. PILOT DEVIATION FROM NATOPS PROCEDURES		10. LANDING SIGNAL OFFICER		18. DESIGN AIRCRAFT			
3. PILOT INCORRECT OPERATION OF A/C SYSTEM		11. OTHER PERSONNEL (Specify)		19. DESIGN CREW EQUIPMENT			
4. PILOT OTHER (Specify)		12. ADMINISTRATIVE		20. DESIGN OTHER (Specify)			
5. CREW		13. FACILITIES-RUNWAY, OVERRUN TAXIWAY, FLIGHT DECK		21. ROLLING/PITCHING DECK ROUGH SEAS			
6. MAINTENANCE PERSONNEL		14. FACILITIES-NAV AIDS, LANDING AIDS (OCA, OCA, ILS, MINWOM)	X	22. MATERIAL FAILURE/MALFUNCTION			
7. MAINTENANCE SUPERVISORY PERSONNEL		15. FACILITIES-CATAPULT, ARRESTING GEAR (Sail or Field)		23. UNDETERMINED			
8. SUPERVISORY OTHER (Specify)		16. FACILITIES OTHER (Specify)		24. OTHER (Specify)			

NAME (LAST, FIRST & MIDDLE INITIAL) (b) (6)	2. RACE LT	3. GRADE (b) (6)	4. BRANCH USNR	5. AGE 27	6. SEX M	7. BILLET PILOT	8. POSITION COCKPIT	9. DUTY F
10. PILOT IDENTIFY & SIGNATURE SEPARATE PAGE 2 NONE								

SECTION C. PERSONNEL DATA		ITEM		ITEM	
11. PILOT EXPERIENCE IN HOURS	11. ALL MODELS	1361	17. CV LANDINGS DAY/NIGHT	ALL	324 / 94
	12. ALL MODELS IN LAST 12 MONTHS	110	18. FOLP LANDINGS LAST 6 MONTHS DAY/NIGHT	IN MODEL	312 / 94
	13. ALL MODELS IN LAST 3 MONTHS	38	19. INSTRUMENT HOURS LAST 3 MONTHS ACTUALS/REGULATED	ALL	0 / 0
	14. ALL SERIES THIS MODEL	A/C 1046	20. NIGHT HOURS LAST 3 MONTHS	IN MODEL	0 / 0
	15. ALL SERIES THIS MODEL LAST 12 MONTHS	DFT/OPT 12 / 83	21. TOTAL HOURS IN JETS (if jet mishap)	ALL	2 / 5
	16. ALL SERIES THIS MODEL LAST 3 MONTHS	A/C 106	22. LAST PRIOR FLIGHT ALL SERIES THIS MODEL	IN MODEL	21
		DFT/OPT 0 / 0		DATE	28 MARCH 1968
		A/C 38		DURATION	2.0
		DFT/OPT 0 / 0		TYPE INSTRUMENT CARD	STANDARD
	23. DATE/GRADE LAST NATOPS STANDARDIZATION CHECK	3 AUG 57 1967 QUAL.			

24. NAME (LAST, FIRST & MIDDLE INITIAL)	25. GRADE	26. NAME (LAST)	27. BRANCH OF SERVICE	28. FILE/SERVICE NO.	29. UNIT	30. INJURY	31. BILLET	32. POSITION
NONE								

ORIGINAL

PART II MAINTENANCE, MATERIAL, AND FACILITIES DATA										
A. A/C HISTORY	1. DATE OF MANUFACTURE	2. FLIGHT HRS. SINCE ACCEPTANCE	3. NO. OF PAR/OVERHALL	4. MONTHS SINCE LAST PAR/OVERHALL	5. FLY. HRS SINCE LAST PAR/OVERHALL	6. LAST/PAR OVERHALL ACTIVITY	7. TYPE OF LAST CHECK PERFORMED	8. FLIGHT HOURS SINCE LAST CHECK	9. DAYS SINCE LAST CHECK	
	30 APRIL 1956	1771	3	16	518	NAS ALAMEDA	4th CALENDAR 10 MAR 1968	29.0	38	
B. ENGINE HISTORY	1. ENGINE MODEL	2. ENGINE SERIAL NUMBER	3. FLIGHT HRS. SINCE ACCEPTANCE	4. NUMBER OF OVERHALLS	5. WAS DIR. REQUESTED?	6. FLY. HRS SINCE LAST OVERHALL	7. LAST OVERHALL ACTIVITY	8. TYPE OF LAST CHECK PERFORMED	9. FLIGHT HOURS SINCE LAST CHECK	10. DAYS SINCE LAST CHECK
	(1) J-65W16A	617041	1415	2	YES	68	NAS ALAMEDA	1st CALENDAR 10 MAR 1968	29.0	38
	(2)									
	(3)									
	(4)									
C. COMPONENT HISTORY	1. COMPONENT INVOLVED NOMENCLATURE	2. MANUFACTURERS PART NUMBER	3. TOTAL HRS. ON PART	4. NO. OF OVER-HALLS	5. HOURS SINCE LAST OVERHALL	6. OVERHALL ACTIVITY	7. WAS DIR. REQUESTED?	8. SER. NO. FLR/AMFLR		
	(1)									
	(2)									
	(3)									
	(4)									
D. INCIDENTS & GROUND ACCIDENTS	1. PARTS REPAIRED		2. PARTS REPLACED							
	PART NUMBER	NOMENCLATURE	DIRECT MANHOLES INVOLVED	PART NUMBER	NOMENCLATURE					
JET ENGINE FLAMEOUT (include intentional securing to prevent engine damage)										
E. ENGINE FAILURES	AT TIME OF FLAMEOUT	1. ALTITUDE	2. TAS	3. RPM	4. EGT	5. MANEUVER AT TIME OF FLAMEOUT	6. FUEL FLOW	7. ATTITUDE		
	0	4000	250 K	BELOW IDLE	900°	LEVEL FLIGHT	NORMAL	LEVEL FLIGHT		
	8. # FURCES	9. RELIGHT	10. ALTITUDE	11. TAS	12. MAX EGT	13. FUEL CONTROL	14. NO. RELIGHT ATTEMPTS			
	0	<input checked="" type="checkbox"/> ATTEMPTED <input type="checkbox"/> ACCOMPLISHED	NA	NA	NA	<input checked="" type="checkbox"/> PRIMARY <input type="checkbox"/> MANUAL	0			
INTENTIONAL SECURE	15. ENGINE SYMPTOMS	16. CAUSE OF SYMPTOMS								
NO	TWO EXPLOSIONS FOLLOWED BY RPM LOSS	UNDETERMINED, SUSPECT 1st STAGE COMPRESSOR BLADE FAILURE								
RECIPROCATING ENGINE FAILURE										
17. ALTITUDE	18. TAS	19. ATTITUDE	20. RPM	21. MAP	22. TORQUE/BNHP	23. FUEL FLOW PRESSURE	24. OIL PRESSURE			
INTENTIONAL SECURE	25. ENGINE SYMPTOMS	26. CAUSE OF SYMPTOMS								
IDENTIFY OTHER REPORTS CONCERNING THIS MISHAP										
F. OTHER REPORT	1. AMFFLR SERIAL NUMBER _____									
	2. DIR MESSAGE REQUEST DATE-TIME-GROUP: NAS LOS ALAMITOS 201745Z APR 68. Info NASC on DIR request. See para. 38 OPNAVINST P3750.68									
	3. OTHER NAF EL CENTRO 180420Z APR 68 PRELIMINARY MSG REPORT OF AIRCRAFT ACCIDENT.									
	4. NAS LOS ALAMITOS 190040Z APR 68 SUPPLEMENTARY MSG REPORT OF AIRCRAFT ACCIDENT									
	5. NAF ALAMEDA MSG 012302Z MAY 68 ENGINE FAILURE/MALFUNCTION INVESTIGATION REPORT.									

AIRCRAFT ACCIDENT REPORT
OPNAV FORM 3750-1 (Rev. 3-69) Page 3

SPECIAL HANDLING REQUIRED in accordance with
Para. 66, OPNAV INSTRUCTION 3750.6, effective edition

1. EQUIPMENT INVOLVED <input type="checkbox"/> CATAPULT <input type="checkbox"/> ARRESTING GEAR		2. PRESSURE SETTING	3. WIND OVER DECK	4. RELATIVE WIND	5. APPROACH/END SPEED
6. MARK NUMBER	7. MODEL NUMBER	8. LOCATION ON SHIP		9. LAUNCHING BRIDLE AND BRIDLE ARRESTER	

10. CATAPULT/ARRESTING GEAR BULLETINS OR NOMOGRAMS USED

11. This portion shall be completed whenever (1) an aircraft accident involves arresting gear barrier and/or barricade equipment, or (2) an aircraft accident involves malfunctioning of arresting gear, barrier and/or barricade equipment. Incidents or routine damage to cables, weldings and other expendable equipment need not be reported herein.

G. SHIPS DATA

ENGAGED	12. DECK RUNOUT (FEET)	13. RAM TRAVIS (INCHES)	14. CONTROL VALVE SETTINGS		15. ACCUMULATION PRESSURE (PSI)	16. COMMENTS (For cable failures specify no. landings and months in service)
			CONSTANT PRESSURE (TONS OR S.F.)	CONSTANT RUNOUT (WT. LBS.)		
DECK PENDANT						
DECK PENDANT						
BARRIER/BARRICADE						

H. DEPLOYMENT

FOR ACCIDENTS ABOARD CARRIERS (Complete on pilot)

1. DATE DEPLOYED COMES	2. DAY HOURS/LANDINGS SINCE DEPLOYMENT	3. DAY HOURS/LANDINGS LAST 30 DAYS
4. NO. DAYS OPERATING PERIOD	6. NIGHT HOURS/LANDINGS SINCE DEPLOYMENT	7. NIGHT HOURS/LANDINGS LAST 30 DAYS
5. LAST HOURS LOGGED SINCE DEPLOYMENT ACTUAL/ESTIMATED		

I. WEATHER

WEATHER AT SCENE OF MISRIP

1. CEILING 5500 BKN	2. VISIBILITY 25 NM	3. surface WIND DIRECTION AND VELOCITY WES 7/15 - 20 KTS	4. TEMPERATURE SURFACE NA OUTSIDE AIR 72°F	5. DEN POINT 34	6. ALTIMETER SETTING 29.85
7. OTHER WEATHER CONDITIONS (Wind aloft, icing level, sea state, density altitude, as appropriate) NONE					

PART III ADDITIONAL INFORMATION

PART	SECTION	ITEM	REMARKS	1. COPY DISTRIBUTION
				2. CC NAVAVNSAFECN DIRECT (AAR)
				1 CC BUMEPS DIRECT (AAR)
				1 CC ONA TRA
				1 CC ONA IS TRA
				1 CC NAVPLANTRERO LONG BEACH
				1 CC NAS LOS ALAMITOS
				1 CC NAVASRO REC PAC EL CENTRO

COST DAMAGE TO:	A. GOVERNMENT PROPERTY NONE	B. PRIVATE PROPERTY NONE	6. DATE SUBMITTED TO OO - 5 MAY 1969
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PART IV SIGNATURES OF THE BOARD

1. SENIOR LCDR (b) (6)	4. SENIOR (TAR) LCDR (b) (6)	UNIT WILLET
2. JUNIOR NAS LOS ALAMITOS AV SAFETY OFFICER	5. JUNIOR (TAR) NAS LOS ALAMITOS, INC. MAINT OFFICER	
3. UNIT NAS LOS ALAMITOS	6. UNIT (TAR) NAS LOS ALAMITOS	UNIT WILLET

* When preparing Incident and Ground Accident reports, items indicated by an asterisk in the upper right hand corner must be filled in. Other items considered appropriate should also be filled in.

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

PART V - THE ACCIDENT

- A. On 17 April 1968, LT (b) (6), VA-771, NAS Los Alamitos, pilot of A-4A, BUNO 137828, was participating in a Supplementary Training and Readiness Period (STARP) and was scheduled for a low level navigation training flight. LT (b) (6), VA-771, NAS Los Alamitos, also participating in a STARP, was scheduled as LT (b) (6) wingman.
- B. LT (b) (6) briefed the flight and filed the required DD-175 for the flight on Miramar SANDBLOWER Route 326. The flight departed NAS Los Alamitos at 1410U. Except for a few deviations required by existing weather, the flight progressed normally. The low level navigation flight was terminated on course on the third leg of the route. At that time, the aircraft were over the northern part of the Salton Sea, California and a climb had commenced, LT (b) (6) in A-4A, BUNO 137828, was climbing through 8,000 feet MSL at 90% RPM and 280 Knots IAS when he heard and felt a small explosion, followed by vibration. He reduced power and informed his wingman that his aircraft had problems.
- C. LT (b) (6) checked all instruments; all were normal, except the exhaust gas temperature (EGT) which was rising rapidly. LT (b) (6) then reduced power from 80% to idle, but EGT continued to rise. He secured the air conditioning unit and switched to manual fuel control, then slowly added power. EGT went to 900 degrees. He again reduced power to idle and returned fuel control to primary. As RPM was increased the EGT increased and remained between 800 to 900 degrees.
- D. Loss of altitude required adding power to 80% RPM in attempt to maintain a stable altitude. EGT remained at 900 degrees.
- E. Within three minutes after the first explosion, LT (b) (6) heard and felt a second explosion milder in force and noise than the first explosion. Concurrent with the second explosion the engine commenced to "unwind". By this time, altitude had become critical and LT (b) (6) ejected from the aircraft.
- F. After LT (b) (6) left the aircraft it turned left and descended into a rocky slope. The aircraft crashed about 17 miles SSE of Borrego Springs, California in a remote unpopulated area of the Anza-Borrego Desert State Park, California. The aircraft exploded and disintegrated upon impact with rocky terrain.
- G. LT (b) (6) ejected from the aircraft at about 4000' MSL. He landed in a dry wash about 2 miles North of the point where the aircraft crashed. He received superficial abrasions on his right elbow and right knee when he was dragged slightly by the parachute after landing.
- H. A park ranger and a man and his son in a camper in the area saw the explosion from the crashed aircraft and saw LT (b) (6) descending in the parachute. They arrived at LT (b) (6) location in about 15 minutes. The park ranger took LT (b) (6) to the park headquarters in Borrego Springs.
- I. A C-45 from NAF El Centro picked LT (b) (6) up at the Borrego Springs airport and took him to NAF El Centro where he was examined by a flight surgeon. LT (b) (6) was found to be uninjured except for the abrasions received from being dragged by the parachute. An S-2 aircraft from El Centro returned LT (b) (6) to NAS Los Alamitos during the evening of 17 April 1968.
- J. A security guard for the aircraft wreckage was furnished by NAF El Centro.
- K. Enclosure (2) is the statement of the pilot, LT (b) (6). Enclosure (3) is the statement of the wingman, LT (b) (6).

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

PART VI - THE DAMAGE TO THE AIRCRAFT

A. The aircraft, A-4A, BUNO 137828, received aifa damage when it crashed, uncontrolled, into a rocky slope. Impact angle was estimated at approximately 55 degrees. At the time of impact, the aircraft was traveling in excess of 280 knots IAS and was in a slight left wing, nose down attitude.

B. Upon impact, the aircraft gouged the rocky terrain to a depth of approximately three to four feet for a distance of about 20 to 30 feet. The aircraft exploded and disintegrated, scattering fuel and debris throughout an area approximately 300 feet laterally and 500 feet upslope from the point of initial impact. There was little ground fire, due to the lack of foliage in the area.

C. The aircraft crashed on a heading of approximately 135 degrees magnetic. The right main gear strut remained near the right edge of the initial impact area. The turbine section of the engine came to rest about 75 feet upslope from the initial impact point. The tail cone and horizontal stabilizer pieces were found approximately 100 feet beyond the turbine section of the engine. The compressor section of the engine was located approximately 100 feet beyond the tail cone and horizontal stabilizer.

D. Enclosure (4) shows the crash site and wreckage scatter pattern. Enclosures (5), (6) and (7) are photos of the engine pieces.

E. The engine, J-65-W16A, serial number W617041 was removed to NARF Alameda for a priority failure/malfunction investigation. ~~_____~~

F. When released by the Naval Aviation Safety Center the remaining wreckage will be salvaged/recovered in accordance with OPNAVINST 3750.6 SERIES. ✓

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

PART VII - THE INVESTIGATION AND ANALYSIS

A. GENERAL.

1. On 17 April 1968, at about 1515U NAS Los Alamitos tower was notified by NAF El Centro tower that an A-4 aircraft had crashed in the Borrego Valley area. The aircraft was identified as 7L53 and A-4A, BuNo 137828 attached to NAS Los Alamitos. The pilot of the aircraft had ejected safely.

2. At the time of crash the AAR Board Members were on board NAS Los Alamitos and assembled at the operations office. Amplifying information received from the wingman via inter-tower communications between NAF El Centro and NAS Los Alamitos, revealed that LT (b) (6) pilot of 7L53 reported engine problems a few minutes prior to the crash. The aircraft crashed in the hills approximately 15 NM south of Borrego Springs, California in the Anza-Borrego Desert State Park, California. The pilot, LT (b) (6), made a safe parachute landing in flat desert area approximately 2 NM NNE of the crashed aircraft. LT (b) (6) was picked up by a park ranger and taken to the park headquarters at Borrego Springs. A C-45 from NAF El Centro picked LT (b) (6) up at the Borrego Springs airport and took him to NAF El Centro where he was examined by a flight surgeon. LT (b) (6) was uninjured except for minor abrasions received from parachute drag. He was then returned to NAS Los Alamitos.

3. NAF El Centro provided a security force for the crash site.

4. NAF El Centro sent the preliminary message report of the aircraft accident. NAS Los Alamitos made the required telephone reports.

5. The Senior Member of the Board was advised that an investigator was being sent by the Naval Aviation Safety Center and that he would arrive in San Diego, California at 1310U on 18 April 1968.

6. On 18 April 1968, the Board proceeded to Borrego Springs, California where information concerning the location and accessibility of the crash site was obtained from park rangers. It was learned that the crash occurred on the north slope of a range of hills located approximately 17 road miles from Borrego Springs. The site was accessible via County road S-3 to State Highway 78, then east to a jeep trail, then four miles south on the jeep trail located in a dry creek bed to the base of the hills where the crash was located. The crash site was approximately one mile from that point and was accessible only by foot. The crash site was in the Anza-Borrego Desert State Park. No property damage was considered to have resulted from the crash. The area of the crash is uninhabited and no reports of injuries to personnel on the ground were received by the park rangers. The Ranger-in-Charge of the park stated no claim for damages was probable, however, he requested that the wreckage be removed from the park to eliminate possible future injury to park visitors who frequently roam through the area where the crash occurred.

Enclosure (8) is a chart showing the area involved in the crash.

7. On 19 April 1968, the Board accompanied by the investigator from the Naval Aviation Safety Center were lead to the crash site by park rangers. The engine was found in two major pieces; the turbine section and compressor section. The compressor section exhibited low RPM on impact and considerable in-flight foreign object damage. Airframe parts were examined, none exhibited any failures or malfunctions; none had been reported by the pilot. The ejection seat and canopy were not found.

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

PART VII - THE INVESTIGATION AND ANALYSIS, continued

8. Upon completion of the investigation of the wreckage, the Board returned to NAS Los Alamitos to arrange for recovery of the engine for priority malfunction/failure investigation. The investigator from the Naval Aviation Safety Center arranged for a priority malfunction/failure investigation through NAVAIRSYSCOMREPAC. The investigation was assigned to NARF Alameda. The Force Aviation Safety Officer, COMNAVAIRPAC was contacted and he arranged for helicopter services to assist the Board in recovering the engine.

9. On 20 April 1968, HMM-462, MCAF Santa Ana, dispatched a CH-53A to NAS Los Alamitos to airlift the NAVAVNSAFECEN Investigator, a member of the Board and working party to the crash site. The party and the engine were returned to NAS Los Alamitos.

10. On 21 April 1968, NAS Los Alamitos provided a C-118 aircraft to airlift the NAVAVNSAFECEN Investigator and engine to NAS Alameda.

11. On 22 April 1968, NARF Alameda commenced the priority failure/malfunction investigation of the engine. Initial investigation revealed the possibility of a 1st stage compressor blade failure. It was determined that many inlet guide vanes, 1st stage compressor blades and much of the engine casing were missing. The senior member of the Board was contacted and requested to attempt to recover more of these parts.

12. On 24 April 1968, a working party was dispatched to the crash site and more of the requested parts were recovered. These were flown to NARF Alameda on 25 April 1968.

13. The wreckage was released by NAVAVNSAFECEN to the senior member of the Board on 29 April 1968. Salvage/recovery of the wreckage will be accomplished in accordance with OPNAVINST 3750.6 SERIES. Any additional engine blades, etc. recovered during salvage operations will be retained and forwarded to NARF Alameda for investigation.

B. ENGINE FACTORS

1. The engine, J-65-W16A, serial number W617041, was installed at NAS Los Alamitos on 24 November 1967. A first Calendar inspection was completed on the engine at NAS Los Alamitos on 10 March 1968.

2. The operating history of the engine since last overhaul at NARF Alameda on 10 October 1967, is contained in Enclosure (9). Although there were exhaust gas temperature discrepancies recorded and corrected, it is the opinion of the Board that there is no relationship between these discrepancies and the engine failure that occurred. This opinion is based on the fact that the priority failure/malfunction message report (NARF Alameda message 0123022 May 1968) indicates the engine failure occurred in the 1st stage compressor area.

3. The priority failure/malfunction investigation report stated the following:

a. Engine compressor and turbine section have severe evidence of in-flight failure and damage.

b. Engine severely damaged at impact. Evidence of very low RPM at time of impact.

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

PART VII - THE INVESTIGATION AND ANALYSIS, continued

- c. Recovered all but nine 1st stage compressor rotor blades 231817 (J65 PPC 26). All blades show rotational and impact damage. Two 1st stage blades had blade tip broken off approximately $3\frac{1}{4}$ inches above blade platform. Blade tips not recovered. One blade exhibits a possible blade fatigue condition. Cause of this condition undetermined. Broken blade with fatigue indications forwarded to Curtiss Wright Service Engineering via LOREP. Curtiss Wright agreed to further metallurgical study of broken blade. 1st stage blades have a total operating time of 68.1 hours.
- d. All 2nd stage compressor blades 229155 and 3rd stage 229156 recovered. All blades have rotational and impact damage. No blade failure.
- e. 4th, 5th, 6th and 7th stage compressor rotor blades damaged and broken. Approximately 20 blades in each stage broke at the platform. Believed caused by impact.
- f. 8th through 13th stage compressor rotor blades severely damaged.
- g. Recovered 20 severely damaged inlet guide vanes 222886, 28 vanes missing.
- h. Recovered 31 severely damaged 1st stage compressor stator vanes 222501, 25 missing.
- i. Recovered 44 severely damaged 2nd stage compressor stator vanes, 12 missing.
- j. Less than 1/3 of compressor case was recovered. Mostly rear portion. Scattered quantities of aft compressor stator vanes recovered.
- k. One front main bearing support strut and oil pump recovered from front main bearing support. $3/4$ of front main bearing support missing.
- l. All turbine rotor 1st stage blades had blade tips burned off due to over-temperature condition caused by overfueling due to damaged compressor.
- m. All main engine bearings were satisfactory except for impact damage.
- n. 1AW Fonecon D. BAKER, NAVAIRSYSCOMREPAC and C. DAMGAARD, NARF Alameda, on 30 Apr 68 recommend NAVAIRSYSCOM TECH REP WOODRIDGE take paragraph c. for action. Conduct metallurgical study of broken blade with fatigue conditions. Upon completion notify ALCON results of findings under your control 2614-68. Forward broken blade and any blade specimens to NAVAVNSAFECEN NORVA. Accident Investigation Division, Attention MR. T. ARMENTROUT.
- o. Conclude that reported in-flight explosion originated in front of compressor in area of inlet guide vane and 1st stage compressor rotor. Cause of compressor failure undetermined. Three possible causes are foreign object damage, inlet guide vane or carrier ring failure, or 1st stage compressor rotor blade failure. Metallurgical investigation of broken 1st stage compressor rotor blade at Curtiss Wright may assist in more positive conclusions.
- p. Unless investigation at Curtiss Wright reveals positive findings, this will complete action NARF Alameda your control 2614-68.

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

PART VII - THE INVESTIGATION AND ANALYSIS, continued

4. A 7/16ths inch open end wrench approximately 4 3/4 inches long was found in the impact area of the crash site. The wrench was a Craftsman brand. The wrench was found in an unmarked/scratched condition. It was painted black and was filed, or ground thin at the wrench end. The wrench opening was 1/2 inch wide vice the 7/16ths stamped on the wrench. Three identifying dots were drilled in the base of the wrench end. The wrench was sent to NARF Alameda for examination. NARF Alameda could find no evidence on the wrench or engine to indicate the wrench was involved in the accident. NARF Alameda was unable to establish ownership or usage of the wrench. An investigation of the tools used at NAS Los Alamitos did not reveal ownership or usage of the wrench at that activity. The Board was told that the Navy does not purchase Craftsman tools and none were found in use at NAS Los Alamitos. The presence of the wrench at the crash site could have been purely coincidental, but more probably it was in the aircraft and had fallen from someone's pocket while working on, or inspecting the aircraft, at anytime during the history of the aircraft. Enclosure (10) is a photo of the wrench.

C. SAFETY/SURVIVAL EQUIPMENT FACTORS

1. There were no safety/survival equipment factors involved in the accident, except the failure of the day end of the MK 13 MOD 0 Distress Signal Flare. The flare was lost during transfer of the pilot's gear and parachute to NAS Los Alamitos, therefore, no investigation into the cause of the failure could be conducted. The remaining flare in the pilot's MK-3C Life Preserver was tested and it functioned normally. The Lot number of that flare was 50 HK-0465-195. Inspection of several pieces of NAS Los Alamitos personal safety/survival gear, in which the signal flares are carried, revealed that each flare in a particular piece of equipment was of the same Lot as other flares in the equipment. Therefore, it seems reasonable to assume that the failed flare was from the same Lot as the one tested. The Lot number is not listed in NAVORD 00-17190, 4th revision, 10-15-67, as being unserviceable. The Board discounted the possibility that the pilot may have failed to properly pull the toggle on the flare. When the toggle is not pulled properly, the ignition wire is broken off at the sleeve through which it passes and no ignition action takes place. The flares have a history of failure and many Lots have been withdrawn from service. It is assumed that failure of the flare to ignite was due to a faulty flare and is an isolated instance.

2. The parachute was sent to NAVAEROSPACERECFAC El Centro for examination in accordance with NAVAIRINST 13480.1.

3. Enclosure (11) is the statement of the Aircrew Survival Equipment Officer.

D. OTHER FACTORS

1. The Board found no evidence of any other factors being involved in the accident.

2. NATOPS procedures were complied with. No NATOPS procedures were a factor in the accident and no NATOPS changes are required as a result of the accident.

SPECIAL HANDLING IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

PART VIII - CONCLUSIONS

The Board concludes that the primary cause of the accident is engine failure resulting from in-flight foreign object damage. The source of the foreign object is undetermined, pending metalurgical report from Curtiss Wright Service Engineering, however, the most probable source was a failed first stage compressor rotor blade, 231817, J-65 PPC 26, or failed inlet guide vane, or associated carrier ring.

There were no contributing causes to the accident except as may be established by identification of the foreign object involved.

Services rendered to the Board by the personnel of Anza-Borrego Desert State Park, NAF El Centro, COMNAVAIRPAC Force Aviation Safety Officer, NARF Alameda Engineering, HMM-462 and the NAVAVNSAFECEN investigator were outstanding.

PART IX - RECOMMENDATIONS

The Board recommends that:

1. NAVAIRSYSCOM review inspection criteria for J-65 engine compressor rotor blades, inlet guide vanes and carrier rings.
2. All Commands continue emphasis on the tool accountability problem, as related to Aircraft Maintenance.

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

INDEX OF ENCLOSURES

<u>NUMBER</u>	<u>TITLE</u>
(1)	Medical Officer's Report
(2)	Statement of Pilot, LT (b) (6)
(3)	Statement of Wingman, LT (b) (6)
(4)	Photo of Crash Site
(5)	Photo of Engine
(6)	Photo of Engine
(7)	Photo of 1st Stage Compressor Blade Suspected of Failure
(8)	Chart Showing Accident Area
(9)	Statement of Aircraft Maintenance Officer
(10)	Photo of Wrench
(11)	Statement of Survival Equipment Officer

MEDICAL OFFICER'S REPORT OF A ACCIDENT, INCIDENT, OR GROUND ACCIDENT PAGE 1

OPNAV FORM 3750-8 (REV. 3-63)

SPECIAL HANDLING REQUIRED - See

NAVINST 3750.6E for instructions.

OPNAV REPORT 2750-7

SECTION A - IDENTIFICATION

1. FROM (Name and mailing address of activity)
 Naval Air Station, Los Alamitos, California 90720

2. MOB NUMBER
 68-4

3. LEAVE BLANK

4. TYPE OF MISHAP
 ACCIDENT GROUND ACCIDENT INCIDENT

5. TIME & ZONE
 1515 PST

6. DATE
 17 APR 68

7. GEOGRAPHICAL LOCATION
 082°M. 13NM, From JUAN, Calif.

8. MODEL A/C
 A-4A

9. BUNO
 137828

10. NO. OF OCCUPANTS
 1

11. DAMAGE CODE
 ALPHA

12. UNIT OPERATING A/C
 VA-773

13. INDIVIDUALS INVOLVED USE ADDITIONAL SHEETS IF REQUIRED NAME (Last, first and middle initial)	14. UNIT TO WHICH ATTACHED	15. RANK/ RATE	16. FILE/SERV. NO. DESIGNATOR	17. DUTY ASSIGNMENT		18. DATE OF LAST PHYSICAL	19. PHYSICALLY QUALIFIED FOR FLIGHT	20. BRANCH OF SERVICE	21. INJURY CODE	22. DISPO- SITION
				ABOARD A/C	AT MISHAP					
(b) (6)	VA-773	LT	(b) (6)	P		4-30-67	YES	USNR	F	I

23. CLARIFICATION OF ITEMS 13-22 WHEN NECESSARY

24. MODEL-OTHER A/C IF INVOLVED

25. BUNO

26. NO. OF OCCUPANTS

27. UNIT OPERATING A/C

28. DAMAGE CODE

29. MOB NO.

30. NARRATIVE ACCOUNT OF MISHAP (Use additional 8 x 10 1/2 sheets if required)

On 14 APR 68 at 1410 hours, LT. (b) (6) USNR, took off on a low level navigation flight in an A-4A aircraft, BUNO 137828, with LT. (b) (6) as wingman.

Flight progressed routinely until about 1510 hours, when an explosion followed by vibration was felt at an altitude of 8000 feet over Borrego Valley. Thereafter EGT temperature began to climb and remained around 900°. Pilot performed several maneuvers in the cockpit in attempt to alleviate the excessively high EGT temperature. Three to five minutes were used up trying to find the cause of the problem before a second milder explosion occurred followed by rapid decline of engine RPM below idle. The aircraft was then leveled at 4000 feet and a controlled ejection initiated.

See Pilot's Narrative (Encl 1)
 Ejection Narrative (Encl 3)

31. PRIMARY CAUSE FACTOR ASSIGNED BY ACCIDENT BOARD

Engine Failure From In-Flight F.O.D.

32. CONTRIBUTING CAUSE FACTOR ASSIGNED BY ACCIDENT BOARD

33. POSSIBLE CAUSE FACTOR ASSIGNED BY ACCIDENT BOARD

34. HAVE ALL FINDINGS, CONCLUSIONS, & RECOMMENDATIONS BEEN MADE AVAILABLE TO THE A/C ACCIDENT BOARD? IF NO, EXPLAIN.

YES NO

35. REPORT PREPARATION CHECK LIST

ALL PARTS OF FORM COMPLETED DRAWINGS, SKETCHES, PHOTOS SURVIVOR NARRATIVES WITNESS STATEMENTS CONCLUSIONS & RECOMMENDATIONS REQUIRED COPIES FURNISHED

36. REPORT FILED BY (Name & signature of medical officer)

DATE

(b) (6)

(b) (6)

LT MC USN

5 MAY 1968

37. FORWARDED (Name & signature of appointing authority)

DATE

(b) (6)

5/9/68

MEDICAL OFFICER'S REPORT OF ACCIDENT, INCIDENT, OR GROUND ACCIDENT PAGE 2

OPNAV FORM 3750-8A (REV. 3-63)

SPECIAL HANDLING REQUIRED. - See OPNAVINST 3750.6E for instructions.

OPNAV REPORT 3750-7

SECTION B - FACTORS CONTRIBUTING TO OR RELATING TO MISHAP BY PHASE OF MISHAP (List in order in accordance with Section B of inst.)

1. FACTORS	2. PHASE OF MISHAP (See code at right)				PHASE CODE: A - ACCIDENT E - ESCAPE/EGRESS S - SURVIVAL R - RESCUE	REMARKS	FACTOR WEIGHT: M - MAJOR C - CONTRIBUTING Q - QUESTIONABLE OR POSSIBLE
	A	E	S	R			
NOT APPLICABLE							

SECTION C AIR CREW DATA

1. FLIGHT TIME LAST 30 DAYS (All models) 11.5

2. FLIGHT TIME LAST 24 HOURS (All models) NONE

3. NO. FLIGHTS LAST 24 HOURS (Include present flight) 1

4. TIME AT CONTROLS THIS FLIGHT 1.15

5. TOTAL FLIGHT TIME ALL MODELS 1,361

FLIGHT TIME	6. TOTAL	7. LAST 30	8. 90 DAYS	9. 90 DAYS
THIS MODEL	1046	11.5	25	38

10. NO. GROUNDINGS PAST YEAR 1

11. NO. DAYS GROUND PAST YEAR 35

12. DATES AND TYPES OF PRIOR MISHAPS
NONE

13. NO. HRS. IN A DUTY STATUS LAST 24 HRS. 4

14. DIRECTION FACING AT TIME OF MISHAP 240° M.

15. LOCATION AT TIME OF MISHAP
082° M. 13NM from JULIAN, CALIF.

SECTION D ANTHROPOMETRIC DATA (Compare with health record)

AGE 27

HEIGHT (b) (6) IN.

WEIGHT (b) (6) LB.

A. SITTING HEIGHT IN.

B. TRUNK HEIGHT IN.

C. FUNCTIONAL REACH IN.

D. BUTTOCK - KNEE IN.

E. LEG LENGTH IN.

F. SHOULDER WIDTH (BIDELTOID) IN.

16. LABORATORY TESTS AND RESULTS

SPECIMEN	TEST PERFORMED	RESULTS	SPECIMEN	TEST PERFORMED	RESULTS
BLOOD	1.		TISSUE: (CNS)		
	2.			MUSCLE	
	3.			VISCERA	
URINE			OTHER:		
G.I. CONTENT					

17. X-RAY RESULTS
Cervical, Thoracic and Lumbo-Sacral series X-rayed. No fractures or dislocations.

MON NO. 68-4	MODEL A/C A-4A	BUNG 137828	IDENTIFICATION OF INDIVIDUAL
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PERSONAL IDENTIFICATION
NAME OF INDIVIDUAL (b) (6)

MEDICAL OFFICER'S REPORT OF A/C ACCIDENT, INCIDENT, OR GROUND ACCIDENT PAGE 3

OPNAV FORM 3750-8B (REV. 3-63)

SPECIAL HANDLING REQUIRED

OPNAVINST 3750.6E for instructions.

OPNAV REPORT 3750-7

SECTION E

INDIVIDUAL CHRONOLOGICAL DATA

SEE PAGE 8 PARA. 10 OF INSTRUCTION
TO BE COMPLETED ON PLANE COMMANDER, PILOT, CO-PILOT, OTHER INDIVIDUAL
IN CONTROL OF AIRCRAFT AT TIME OF MISHAP, AND/OR INDIVIDUAL CAUSING THE MISHAP

USE LOCAL TIME AND BRIEFLY RECORD ACTIVITY WITHIN EACH COLUMN

48 HOURS PRIOR TO MISHAP

TIME		TIME	
14 APR 68	8 hour cross country hop to Chicago and back (Continental Air Lines Flight Officer)		
15 APR 68	3 good meals Yard work Good night's sleep (8hr) No parties or alcohol		
16 APR 68	Good breakfast San Diego Zoo in afternoon, Dinner out; no cocktails 7 hours sleep		
17 APR 68	Good breakfast		
1200	Check in NASLOSAL Lunch	ACCIDENT PHASE 1511-1515	Routine handling of situation. No panic. No undue apprehension about ejection.
1315	Preflight brief	ESCAPE PHASE	
1410	Takeoff	1515	Routine ejection. See Enclosure #3.
1410-1510	Routine flight with no problems or stress	SURVIVAL PHASE 1519	
		TIME OF RESCUE	1530

WOB NO. 68-4	MODEL A/C A-4A	NUMO 137828	IDENTIFICATION OF INDIVIDUAL PERSONAL IDENTIFICATION
NAME OF INDIVIDUAL (b) (6)			(b) (6)

OP-05F

SECTION F (Continued)

SURFACE INJURIES

DESCRIBE AND SHOW GRAPHICALLY BY OUTLINING AND SHADING AFFECTED AREAS
ALL LACERATIONS, ABRASIONS, CONTUSIONS, PUNCTURE WOUNDS, SPRAINS AND BURNS
RECORD ALL INJURIES NO MATTER HOW TRIVIAL, WHETHER PATIENT LIVED OR DIED

(b) (6)

DETAILS OF SKULL FRACTURES AND BRAIN INJURY. DESCRIBE AND SHOW GRAPHICALLY.

1. ALL FRACTURES, BY TYPE (Simple, depressed, or indirect, etc.) 2. SITES OF BRAIN LESIONS, IF ANY. 3. DISLOCATIONS OF MANDIBLE.

NOT APPLICABLE



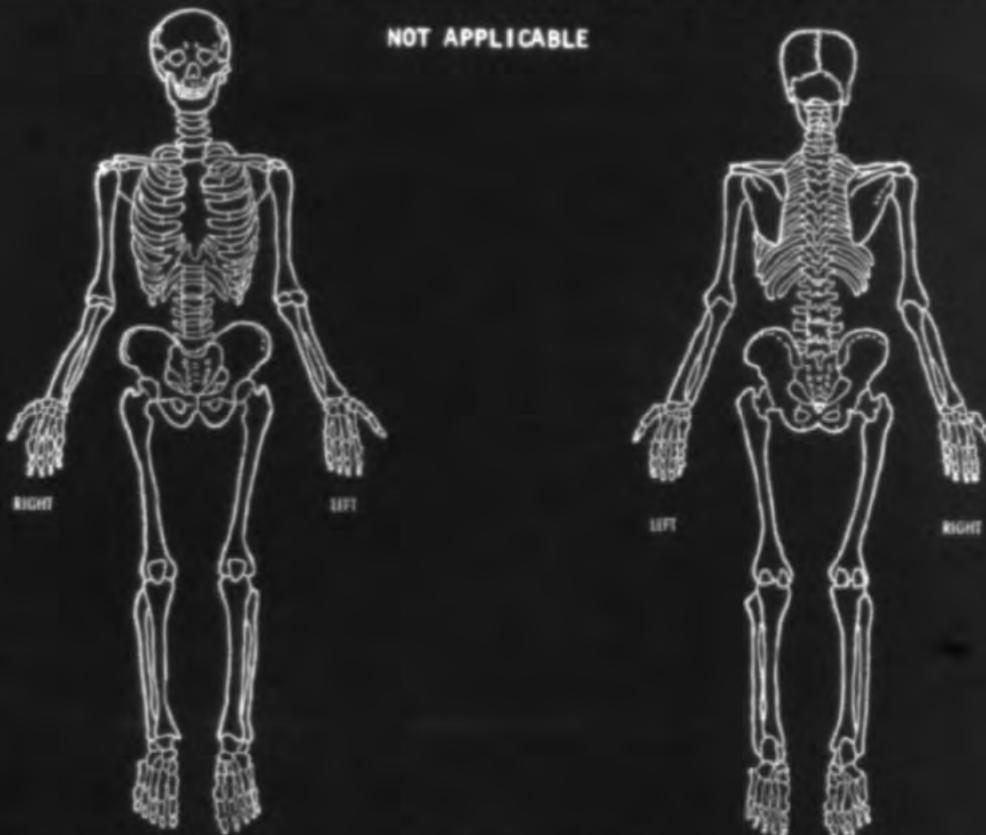
MOR NO. 68-4	MODEL A/C A-4A	BUND 137828	IDENTIFICATION OF INDIVIDUAL PERSONAL IDENTIFICATION
NAME OF INDIVIDUAL (b) (6)		(b) (6)	

OP-05F

SECTION F (Continued)

SKELETAL INJURIES

DESCRIBE AND SHOW GRAPHICALLY BY OUTLINING ALL FRACTURES BY TYPE [Simple, compound, comminuted, etc.] AND DISLOCATIONS INDICATING DIRECTION OF DISPLACEMENT.



DESCRIBE AND SHOW GRAPHICALLY: 1. ALL FRACTURES OF SPINAL COLUMN [Simple, compressed, etc.]
2. DISLOCATION AND DIRECTION OF DISPLACEMENT. 3. SITES OF CORD DAMAGE, IF ANY.

DETAILS OF SPINAL INJURIES

NOT APPLICABLE



MOE NO. 68-4	MODEL A/C A-4A	BUNG 137828	IDENTIFICATION OF INDIVIDUAL PERSONAL IDENTIFICATION
NAME OF INDIVIDUAL (b) (6)		(b) (6)	

SECTION G ESCAPE, PERSONAL AND SURVIVAL EQUIPMENT

LIST AND CODE IN ACCORDANCE WITH SECTION G OF INSTRUCTION: PHASE CODES: A-ACCIDENT/MISHAP E-ESCAPE/EGRESS PHASE
 S-SURVIVAL R-RESCUE PHASE

1. EQUIPMENT DESCRIPTION INCLUDING SPECIFIC MODEL DESIGNATION	2. MODIFICATION	3. RE-REQUIRED	4. AVAIL-ABLE	5. NEED	6. USED	7. FAILED	8. REMARKS (Explain failures, loss, and/or difficulty encountered. Use additional 8x10 1/2 plain paper if needed.)
Flight Suit	Orange, Summer	Y	AESR	AESR	AESR	N	
Flight Boots	Steel Toed	Y	AESR	AESR	AESR	N	
Gloves	Grey	Y	AESR	AESR	AESR	N	
Cutaway G-Suit	MK-2A	Y	AESR	A	A	N	
Helmet	APH6A	Y	AESR	AE	AE	N	
Torso Harness	MA-2	Y	AESR	AE	AE	N	
Life Preserver	MK-3C	Y	AESR			N	
Mini Reg	2700 Firewall	Y					
Oxygen Mask	A-13-A	Y	AESR	A	A	N	
Douglas Escapac	I	Y	A	A	A	N	
Parachute	MB-9	Y	AESR	ES	ES	N	
Pararaft Kit	PK-2	Y	AESR			N	
Shroud Cutting Knife		Y	AESR			N	
Survival Knife		Y	AESR			N	
*Flare (Day/Nite)	MK-13 MOD. 0	Y	AES	S	S	Y	*Day portion of flare was actuated but fized momentarily without production of the advertised smoke signal.
Signal Kit, illumination	MK-79 MOD. 0	Y	AESR			N	

SECTION H NARRATIVE OF ESCAPE/EGRESS, SURVIVAL AND RESCUE PHASES

SEE MOR ENCLOSURE NUMBER 3

MOR NO. 68-4	MODEL A/C A-4A	BUNO 137828	IDENTIFICATION OF INDIVIDUAL PERSONAL IDENTIFICATION
NAME OF INDIVIDUAL (b) (6)		(b) (6)	

MEDICAL OFFICER'S REPORT OF A/C ACCIDENT, INCIDENT, OR GROUND INCIDENT - PAGE 6

OPNAV REPORT 3750-7

OPNAV FORM 3750-86 (REV. 3-63)

SPECIAL HANDLING REQUIRED. See OPNAV INST 3750.8E for instructions

SECTION I

DETAILS OF ESCAPE/EGRESS/SURVIVAL PHASES REFER TO SECTION I OF INSTRUCTIONS

1. TOPOGRAPHY OF INDIVIDUAL'S LANDING SITE

WATER LAND OTHER

2. TYPE OF EGRESS

EJECTION BAILOUT UNDERWATER NORMAL OTHER (State type)

S	E	REMARKS
		3. NOT ATTEMPTED
	<input checked="" type="checkbox"/>	4. ATTEMPTED
	<input checked="" type="checkbox"/>	5. ACCOMPLISHED
		6. THRU CANOPY
YES	NO	EGRESS DIFFICULTIES IF YES, EXPLAIN DIFFICULTIES
	<input checked="" type="checkbox"/>	7. PRIOR TO EGRESS
	<input checked="" type="checkbox"/>	8. DURING EGRESS
	<input checked="" type="checkbox"/>	9. SUBSEQUENT TO EGRESS

10. GIVE TYPE AND MODEL OF EJECTION SEAT USED: **Douglas ESCAPAC I**

11. METHOD OF FIRING SEAT: PRIMARY SECONDARY OTHER

12. SEQUENCE OF EJECTION

13. POSITION OF SEAT ON EJECTION: **Middle Position**

UP DOWN FORWARD AFT OTHER

14. ATTITUDE OR MANEUVER OF A/C AT EXIT: **Level with slight nose up**

15. AIRSPEED: **200-220 knots**

16. ALTITUDE AT TIME OF EXIT (FEET): **4000 feet**

17. ALTITUDE OF PARACHUTE OPENING: **Zero Delay (2500-3000 feet)**

18. WEIGHT: **182 lbs.**

19. TIME IN WATER

20. TIME IN RAFT

21. WIND VELOCITY: **15 knots SW (250°)**

22. WAVE HEIGHT

23. WAVE INTERVAL

24. AIR TEMPERATURE: **72° F**

25. WATER TEMPERATURE

26. VISIBILITY: **Unlimited**

27. ALERTING FACTORS: **Wingman-Radio**

28.

29. MEANS OF LOCATING ACCIDENT SITE: **Witnesses in area saw crash of Aircraft and also saw parachute canopy.**

30.

31. MEANS OF LOCATING SURVIVOR: **Visual Sighting**

32.

33. MEANS OF LOCATING SURVIVOR: **Found by Park Ranger who was in immediate area at time of Accident**

34.

35. DID INDIVIDUAL DEPART FROM LANDING SITE? **(If Yes, Explain reason and sequence up to rescue)**

NO YES

SECTION J TRAINING FACTORS

1. DATE OF LAST TRAINING: **LPC AUG 66** EJECTION TOWER: **AUG 66** EJECTION SEAT: **JAN 68** SURVIVAL

2. DID THE LACK OF TRAINING AND/OR EXPERIENCE PLAY A PART IN ANY PHASE OF THIS MISHAP? (If yes, explain)

NO YES

SECTION: **J #1**

LPC **NAS LEMOORE, CALIF.**

EJECTION SEAT **NAS LOS ALAMITOS, CALIF.**

MOR NO. **68-4** MODEL A/C **A-4A** BUNO **137828** IDENTIFICATION OF INDIVIDUAL **PERSONAL IDENTIFICATION**

NAME: **(b) (6)**

UNIT: **(b) (6)**

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

INDEX OF ENCLOSURES

<u>NUMBER</u>	<u>TITLE</u>
(1)	Pilot's Narrative
(2)	Wingman's Narrative
(3)	Narrative of Escape/Egress, Survival and Rescue Phases
(4)	Report of Initial Medical Examination
(5)	Summary and Aeromedical Conclusions

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

Statement of LT (b) (6) USNR, pilot A-4A, BUONO 137828,
Involved in an aircraft accident on 17 April 1968.

I was scheduled for a low level navigation flight at 2200Z on 17 April 1968.
I led a section takeoff in BuNo 137828 with LT (b) (6) flying wing
in BuNo 137823.

All engine instruments were normal on takeoff. The filed MIRAMAR 326
SANDBLOWER was flown with some deviation for weather, however the last leg
terminated on course and a climb was initiated ten miles east of the Salton
Sea on a heading of about 240° to pass north of R2521. A fuel check revealed
the wingman was low man with 2700 pounds. I had 3400 pounds. At about 2310Z
we were over the Borrego Valley, at 280 kts, climbing through 8,000 ft at
about 90% RPM when I felt a small explosion followed by vibration. I immedi-
ately reduced power and notified the wingman that I had some problems and
had him "look me over". A check of engine instruments showed power at 80%
and steady but EGT was rapidly climbing. Oil pressure was normal in both
the gauge and EPI. Fuel pressure was normal. I reduced power to idle but
EGT continued to climb so I selected manual fuel.

I was relaying information to the wingman during this time. I elected to head
toward Miramar though El Centro was suggested by the wingman as a possibility.

There was no reduction in EGT with throttle reduction. I then considered the
problem could be somewhere other than in the engine, perhaps a blown panel
or air conditioning problem that severed EGT transducer lines. I secured the
air conditioning and added power slowly to see what the response would be.
RPM followed throttle movements but EGT climbed to 900°. I returned to idle
and switched back to primary fuel and once again eased the throttle forward.
RPM still followed throttle movement but EGT remained between 800° and 900°.
Now, altitude was becoming a factor so power was added to 80% RPM in an attempt
to maintain level flight. EGT settled around 900°. Moments thereafter, a
second explosion (milder in force and noise than the first explosion) was felt
and the engine began to unwind. (I estimate the time between the first and
second explosion at three minutes). Altitude was becoming critical so when
it was apparent control over the engine was lost and RPM was below idle, I
transmitted my intention to eject and requested that the wingman issue the
HAYDAY. I leveled the aircraft at 4000' and positioned myself for a more
or less controlled ejection. Mask was on and visor down. Opening shock was
milder than expected. I pulled the D-ring and put it in my G-Suit pocket.
I also removed my oxygen mask. An initial check of the chute revealed the
risers were twisted and resulted in a rather swift unwinding. I noted the
aircraft fire ball and then focused on the area of intended landing. Wind was
15 to 20 kts. and my forward motion seemed excessive so I attempted some chute
control that appeared to be effective.

Landing shock was milder than expected and wind was only a minor problem in re-
leasing the chute. I quickly spread the chute and weighted it with rocks and
inflated the life raft as evidence to my wingman that I was in good health.
I removed the Mark III C and inflated it to provide additional color. I attempted
to light the day-end on a day-night flare, but it burned momentarily and went out.

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

Another section of A-4s had apparently spotted me and responded to my waving with wing rocks.

Within fifteen minutes after landing a park service agent and a camper with his son arrived to return me to civilization. The boy had spotted my chute and the fire ball of the exploding aircraft. The aircraft impact was about 3 1/2 miles SE of the intersection of Highway 78 and county road S-3. The impact is about 2 miles south of Highway 78 in Chuckwalla Wash.

(b) (6)

ENCLOSURE

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

Statement of LT (b) (6) USNR, VA771, concerning A-4A, BuNo 137828 accident occurring 17 April 1968.

LT (b) (6) and I were scheduled for a low level navigation flight at 1400 April 17, 1968. We briefed and flew Miramar 326 navigation route. After completing the low level portion of the flight, we had crossed over the northern part of the Salton Sea headed for the base and about 30 miles West of the Salton Sea, Lt (b) (6) said he had experienced a muffled explosion, but the engine was still running. He said everything was normal except the EGT was high about 680°. I visually inspected the aircraft but could not find any discrepancy. By this time LT (b) (6) had made up his mind to head for Miramar for a landing as soon as possible. Very shortly after that he reported the engine had quit and he was ejecting. At the time of ejection his aircraft was in a slight left bank, about 15° and at about 3500'. His ejection seat and parachute operation seemed normal, and the pilot was on his feet waving after he landed. I came up on guard channel and Emergency Code 77. Within 10 minutes two other A-4s arrived on the scene. Fuel was becoming critical so I returned to Los Alamitos. LT (b) (6) ejected at about 1515 PST in the Borrego Valley area. The aircraft crashed into a hill about 5 miles southwest of the pilot.

(b) (6)

LT, USNR-R VA-771

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

MOR 68-4 ENCLOSURE (3) PAGE 5 SECTION H

NARRATIVE OF ESCAPE/EGRESS, SURVIVAL AND RESCUE PHASES

ESCAPE/EGRESS

1515 hours: After several unsuccessful attempts to locate aircraft dysfunction a decision was made to eject. At about 4000 feet with visor down and oxygen mask in place a slow left turn was initiated to avoid ejection over mountainous terrain. The aircraft was put in level, slight nose up attitude. Sink rate at time of ejection was very low and airspeed was approximately 200-220 knots. Intention to eject was transmitted to wingman. Pilot had ample time to position body in seat, but forgot to remove kneeboard and adjust seat.

1516 hours: Seat fired primarily by pulling face curtain with both hands. Pilot noted very mild shock with smooth transition from cockpit to atmosphere. Moderate tumbling occurred prior to seat separation. Parachute shrouds were observed to be initially twisted with some deformity of the canopy. This was rapidly corrected by spinning of the occupant 5-6 times.

1517 hours: After stabilization of parachute and normal descent had been established, pilot removed oxygen mask and pulled "D" ring ("just in case").

1518 hours: Began looking for touchdown spot. Rocky area to west and steep slope to the east, were avoided by working the risers.

1519-1520 hours: Made contact with ground and rolled to right sustaining only injuries which consisted of abrasions of the right forearm and right knee. Quick disconnects functioned perfectly.

Terrain was flat and rocky. Parachute was spread over a bush and held down with rocks for purpose of marking pilot's position. Raised arms with clinched fist signalling A-4s making passes over touchdown site. Raft and MK-3C inflated to use as bright markers. Day/Night flare failed. Smoke end fizzled without production of smoke.

RESCUE

1530 hours: Found by Park Ranger from Borrego Park System. Ranger's 13 year old nephew spotted parachute. Park Ranger drove to within 100 yards of landing site with four (4) wheel drive vehicle.

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

ESCAPE, continued

1 1715 hours: Taken from Borrego Springs County Airport to NAF El Centro, California.

1815 hours: Medical examination by (b) (6) LT MC USNR at NAF El Centro, California. See Enclosure (4).

U. S. NAVAL AIR FACILITY
EL CENTRO, CALIFORNIA

IN REPLY REFER TO:
18 April 1968

LT. (b) (6)
Flight Surgeon
Dispensary
Naval Air Station
Los Alamitos, California 90721

Dear Dr. HOUTS:

At 1815 on 17 April 1968, LT. (b) (6) reached El Centro Naval Air Facility and was examined by me.

He states that he had been flying his A4 Skyhawk for approximately one and one-half hours when he heard and felt an explosion while at an altitude of 6,000 feet. A second explosion at 4,000 feet was accompanied by decreasing engine RPM. He ejected at approximately 4,000, wings and nose level at 250 knots. Erect position, visor down, mask in place. Seat separation and chute deployment were as advertised. He recalls some tumbling. In addition, the shroud lines were initially twisted and he spun several times while the lines unwound. Landing was uneventful and he was picked up 15 minutes later by a civilian truck and taken to a local ranger station. The patient described no injury on ejection or landing.

Physical examination was entirely negative except for (b) (6)

X-rays of the entire vertebral column were negative and are enclosed.

Urinanalysis was normal and blood samples were drawn, centrifuged, and frozen for routine studies should they be necessary.

Sincerely,

(b) (6)

LT MC USNR

cde

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

SUMMARY AND AERO MEDICAL CONCLUSION

There is no doubt that this accident was caused by material failure somewhere in the power plant. All evidence collected fails to reveal human factors of any type as causative or contributory.

The pilot is relatively fresh from the "fleet". In addition to a high level of familiarity and competency in the A-4 aircraft, he is decorated with combat awards including the Silver Star Medal. Health records and log book entries show up-to-date training in the low pressure chamber and ejection seat. The pilot's activity preceding this incident must be considered moderate and sane. Interviews have established that no underlying emotional or family problems were present to alter the pilot's performance.

The accident phase itself was handled calmly and effectively demonstrating the pilot's past experience and present ability as a test pilot.

The escape phase went smoothly, efficiently and as advertised. Practically unavoidable minor injury occurred on touchdown.

Survival phase was brief and unremarkable.

Rescue phase was quick, expeditious and uncomplicated.

Only one conclusion seems appropriate: Injury will predictably be minor or absent if a pilot is well prepared and unhesitant to use the equipment designed to save his life.

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

Statement of LT (b) (6) USNR, pilot A-4A, BUONO 137828,
involved in an aircraft accident on 17 April 1968.

I was scheduled for a low level navigation flight at 2200Z on 17 April 1968.
I led a section takeoff in BuNo 137828 with LT (b) (6) flying wing
in BuNo 137823.

All engine instruments were normal on takeoff. The filed MIRAMAR 326
SANDBLOWER was flown with some deviation for weather, however the last leg
terminated on course and a climb was initiated ten miles east of the Salton
Sea on a heading of about 240° to pass north of R2521. A fuel check revealed
the wingman was low on fuel with 2700 pounds. I had 3400 pounds. At about 2310Z
we were over the Borrego Valley, at 280 kts, climbing through 8,000 ft at
about 90% RPM when I felt a small explosion followed by vibration. I immedi-
ately reduced power and notified the wingman that I had some problems and
had him "look me over". A check of engine instruments showed power at 80%
and steady but EGT was rapidly climbing. Oil pressure was normal in both
the gauge and EPI. Fuel pressure was normal. I reduced power to idle but
EGT continued to climb so I selected manual fuel.

I was relaying information to the wingman during this time. I elected to head
toward Miramar though El Centro was suggested by the wingman as a possibility.

There was no reduction in EGT with throttle reduction. I then considered the
problem could be somewhere other than in the engine, perhaps a blown panel
or air conditioning problem that severed EGT transducer lines. I secured the
air conditioning and added power slowly to see what the response would be.
RPM followed throttle movements but EGT climbed to 900°. I returned to idle
and switched back to primary fuel and once again eased the throttle forward.
RPM still followed throttle movement but EGT remained between 800° and 900°.
Now, altitude was becoming a factor so power was added to 80% RPM in an attempt
to maintain level flight. EGT settled around 900°. Moments thereafter, a
second explosion (milder in force and noise than the first explosion) was felt
and the engine began to unwind. (I estimate the time between the first and
second explosion at three minutes). Altitude was becoming critical so when
it was apparent control over the engine was lost and RPM was below idle, I
transmitted my intention to eject and requested that the wingman issue the
MAYDAY. I leveled the aircraft at 4000' and positioned myself for a more
or less controlled ejection. Mask was on and visor down. Opening shock was
milder than expected. I pulled the D-ring and put it in my G-Suit pocket.
I also removed my oxygen mask. An initial check of the chute revealed the
risers were twisted and resulted in a rather swift unwinding. I noted the
aircraft fire ball and then focused on the area of intended landing. Wind was
15 to 20 kts, and my forward motion seemed excessive so I attempted some chute
control that appeared to be effective.

Landing shock was milder than expected and wind was only a minor problem in re-
leasing the chute. I quickly spread the chute and weighted it with rocks and
inflated the life raft as evidence to my wingman that I was in good health.
I removed the Mark III C and inflated it to provide additional color. I attempted
to light the day-end on a day-night flare, but it burned momentarily and went out.

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

Another section of A-4s had apparently spotted me and responded to my waving with wing rocks.

Within fifteen minutes after landing a park service agent and a camper with his son arrived to return me to civilization. The boy had spotted my chute and the fire ball of the exploding aircraft. The aircraft impact was about 3 1/2 miles SE of the intersection of Highway 78 and county road S-3. The impact is about 2 miles south of Highway 78 in Chuckwalla Wash.

(b) (6)

Certified to be
a True Copy

(b) (6)

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

Statement of LT (b) (6) USNR, VA771, concerning A-4A, BuNo 137828
accident occurring 17 April 1968.

LT (b) (6) and I were scheduled for a low level navigation flight at 1400
April 17, 1968. We briefed and flew Miramar 326 navigation route. After
completing the low level portion of the flight, we had crossed over the
northern part of the Salton Sea headed for the base and about 30 miles
West of the Salton Sea, Lt (b) (6) said he had experienced a muffled ex-
plosion, but the engine was still running. He said everything was normal
except the EGT was high about 680°. I visually inspected the aircraft but
could not find any discrepancy. By this time LT (b) (6) had made up his
mind to head for Miramar for a landing as soon as possible. Very shortly
after that he reported the engine had quit and he was ejecting. At the
time of ejection his aircraft was in a slight left bank, about 15° and at
about 3500'. His ejection seat and parachute operation seemed normal, and
the pilot was on his feet waving after he landed. I came up on guard
channel and Emergency Code 77. Within 10 minutes two other A-4s arrived
on the scene. Fuel was becoming critical so I returned to Los Alamitos.
LT (b) (6) ejected at about 1515 PST in the Borrego Valley area. The
aircraft crashed into a hill about 5 miles southwest of the pilot.

(b) (6)

LT, USNR-R VA-771

Certified to be
a True Copy

(b) (6)



ENCLOSURE (4) 1-IMPACT POINT, 2-TURBINE, 3-HORIZONTAL STABILIZER,
4-COMPRESSOR SECTION.

MAS LOS ALAMITOS 3-68A, 4-17-68

A-4A, BUMO 137828, pilot (b) (6) VA-773

SPECIAL HANDLING REQUIRED TAW OPNAVINST 3750.6 SERIES



ENCLOSURE (5) COMPOSITE VIEW OF ENGINE AND TURBINE AS FOUND AT CRASH SITE.
NAS LOS ALAMITOS 3-68A, 4-17-68
A-4A, BUONO 137828, pilot (b) (6), VA-773
SPECIAL HANDLING REQUIRED LAW OPNAVINST 3750.6 SERIES



ENCLOSURE (6) COMPOSITE PHOTO OF ENGINE COMPRESSOR SECTION.
NAS LOS ALAMITOS 3-68A, 4-17-68
A-4A, BUONO 137828, pilot (b) (6), VA-773
SPECIAL HANDLING REQUIRED IAW OPNAVINST 3750.6 (2-4-11)



ENCLOSURE (7) 1st STAGE COMPRESSOR BLADE SUSPECTED OF FAILURE
NAS LOS ALAMITOS 3-68A, 4-17-68
A-4A, BUONO 137828, pilot (b) (6) VA-773
SPECIAL HANDLING REQUIRED IAW OPNAVINST 3750.6 SERIES



ENCLOSURE (8) CHART OF ACCIDENT AREA.
 LEGEND: 1. 1st EXPLOSION-ALTITUDE 8000' MSL,
 280 KTS IAS. 2. 2ND EXPLOSION-ALTITUDE 4000'
 MSL, 220 KTS IAS. 3. POINT OF EJECTION-ALTITUDE
 3800-4000' MSL, 220 KTS IAS.
 NAS LOS ALAMITOS 3-22-58, 1-17-58, 1-4-58,
 BuNo 137828, PILOT (b)
 SPECIAL HANDLING REQUIRED IAW OPRNAVST 3750.6 SERIES

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

AIRCRAFT MAINTENANCE OFFICER'S STATEMENT

A-4A BUNO 137828 was received by NAS Los Alamitos on 28 December 1966. Following completion of progressive aircraft rework at NAS Alameda on 22 December 1966. The 4th calendar inspection was completed on the aircraft on 10 March 1968. It had flown 517.5 hours since the last P.A.R. and 29.0 hours since its last calendar inspection, including the flight of 1.1 hours on the flight terminating with the accident.

The engine, Serial W-617041, was installed at NAS Los Alamitos on 24 November 1967 with zero hours since overhaul. At the time of the accident it had flown 68.1 hours since overhaul and 29.0 hours since the last calendar inspection. Its last overhaul was completed at NAS Alameda on 10 October 1967, and shipped to NAS North Island for custody. The engine was shipped from NAS North Island to NAS Los Alamitos on 18 October 1967.

Since installation of engine Serial W-617041 on 24 November 1967, the following engine discrepancies and corrective actions were recorded:

1. 2 December 1967.

DISCREPANCY: T.P.T. 680° at 99.5% RPM.

CORRECTIVE ACTION: Jet-Cal Engine and Adjusted T.P.T. to 655° at 99.8% RPM.

2. 3 December 1967.

DISCREPANCY: T.P.T. 670° on take off at 99.5% RPM.

CORRECTIVE ACTION: Jet-Cal Engine. Found error in last Jet-Cal. Set engine at 99.9% RPM with 655° on Jet-Cal. Air Temp. 64°. Tagged E.P.I. Gauge to correction.

3. 7 December 1967.

DISCREPANCY: After take off and airplane cleaned up, loud grating noises occurred from unknown source, accompanied with minor airframe vibration and when power was reduced, it momentarily subsided and then began again. (An immediate landing was executed without further investigation).

CORRECTIVE ACTION: Removed engine and sent to IMA. Re-installed engine and retrimmed. No vibrations. All systems normal. E.P.I. Gauge reads 100% RPM - T.P.T. 655°. Jet-Cal reads 100.2% RPM, TPT 655°, Runway Temp. 55°.

4. 11 January 1968.

DISCREPANCY: On climbout had 670° EGT at 99.5% held less than 10 seconds.

CORRECTIVE ACTION: Adjusted Max RPM 100.4% EGT 657°. Runway Temp. 66°. Jet-Cal RPM 100.4% EGT 657°. Aircraft RPM 100.2%, EGT 657°.

5. 13 January 1968.

DISCREPANCY: (Info) An unidentifiable whine noise when RPM of approximately 80% is selected. Increase RPM and it goes down considerably. Noticed it first on deck at about 70% RPM. 670° TPT on take off. Reduced to 99% RPM to decrease temperature.

CORRECTIVE ACTION: Connected incompletely installed ducting. (Air Conditioning turbine ducting fittings not secured tightly).

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

The aircraft was flown 65.3 hours since correction of the vibration discrepancy on 7 December 1967 without further vibration discrepancies. Since the last EGT discrepancy on 13 January 1968, the aircraft was flown 58.3 hours without further EGT discrepancies. For the last 10 flights of the aircraft, 5 were discrepancy free and 5 downing discrepancies were recorded; 3 discrepancies on pressurization surge, 1 on turn needle being too sensitive and 1 on windshield air requiring cycling several times before it operated properly. The pressurization surge was corrected by changing the air control valve. All other discrepancies were also corrected and the aircraft was completely free of discrepancies on its last three flights. A Parts on Order for a port wing transfer valve was outstanding, therefore, the aircraft was configured with a centerline tank.

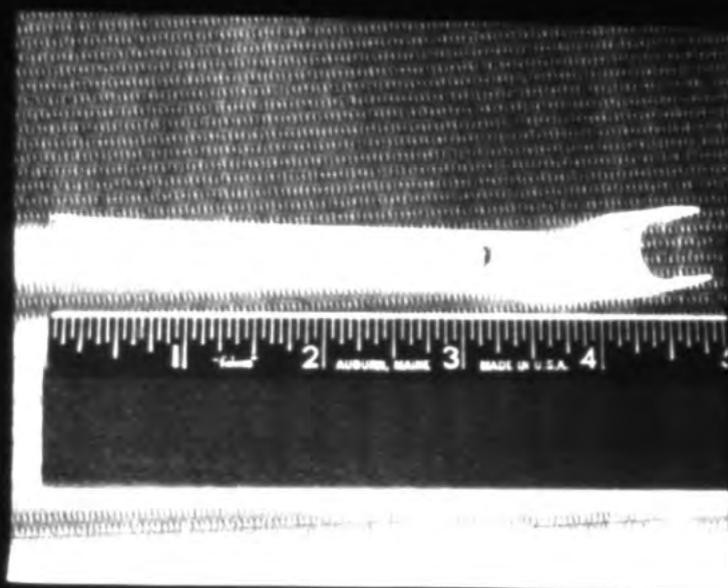
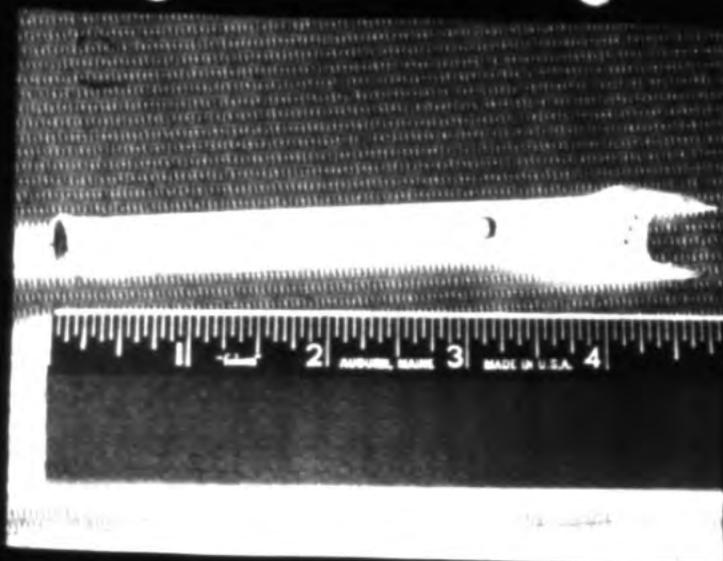
The record of RDT and EGT data, as recorded on Part C of the yellow sheet since installation of engine Serial W-617041, is as follows:

<u>DATE</u>	<u>RDT</u>	<u>EGT (Start)</u>	<u>EGT (T.O.)</u>
<u>1967</u>			
12-2	115	640	670
12-3	115	610	670
12-7	116	605	660
12-21	100	610	610
<u>1968</u>			
1-8	98	600	-
1-10	110	605	610
1-11	120	620	670
1-13	-	-	-
1-13	115	680	670
1-14	115	630	630
1-14	70	670	-
1-17	-	625	665
1-19	120	615	-
1-19	120	630	-
1-20	118	620	630
1-21	120	630	640
1-24	125	625	-
1-24	105	720	-
1-25	120	650	650
1-26	121	640	635
1-27	120	620	650
1-28	115	590	645
1-28	117	600	650
3-15	115	630	660
3-20	112	650	660
3-21	112	640	650
3-21	114	660	670
3-22	115	670	650
3-24	120	620	600
3-27	118	610	625
3-28	120	620	630
4-3	118	630	645
4-4	110	650	640
4-5	110	630	620
4-6	114	630	630
4-10	-	670	650
4-11	115	680	660

Note: - Indicates No Log Entry

(b) (6)

CDR USNR-R (ZAR)



ENCLOSURE (10) WRENCH FOUND AT IMPACT POINT
NAS LOS ALAMITOS 3-68A, 4-17-68
A-4A, BUNO 137828, PILOT (b) (6)
SPECIAL HANDLING REQUIRED IAW OPNAVINST 3750.6 SERIES

SPECIAL HANDLING IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

Statement of the Aircrew Survival Equipment Officer.

ESCAPE SYSTEM

Ejection was initiated after a flame out at approximately 3500 MSL, straight and level flight. The ejection seat used was a Douglas Escape-1 Ground Level Escape System. Ejection was accomplished by use of the face curtain and worked as designed. The seat had Aircrew System Change No. 48 incorporated and Interim Aircrew System Bulletins 138 and 144 performed while in calendar inspection.

SURVIVAL EQUIPMENT

Type Parachute: MB-9 Serial #143618 manufactured by Reliance 09-60.
Type Actuator: M/S 10000 14,000' aneroid setting
Type Cartridge: Mk5 Mod 1-2 sec delay Lot #1 IHM 0667

All current directives had been incorporated.

Parachute and Bail-out O2 system functioned normally.

The difficulty encountered with the day end of the MK-13 MOD 0 day/night distress signal, as noted in the pilot's statement, could not be investigated as the failed flare was not returned to NAS Los Alamitos. The other flare contained in the pilot's MK-30 Life Preserver was tested and it functioned normally. The tested flare was Lot number 50 HK-0465-195. An inspection of other survival equipment at NAS Los Alamitos in which the flares are carried, revealed that each flare contained in a particular piece of equipment was of the same Lot number as the others in the piece of equipment. In view of this, it is assumed that the failed flare was of the same Lot number as the one tested.

(b) (6)

LT USN

R 012302Z MAY 68
FM NAVAIREWOR KFAC ALAMEDA
TO RUWJMUA/NAVAIRSYSCOMREPAC
INFO RUEBBHB/NAVAIRSYSCOMHC
RUWJMUA/COMNAVAIRPAC
RUWJNVA/NAS LOS ALAMITOS
RUWJNTA/NAF EL CENTRO
RUCILSA/NAVAVNSAFECEN NORVA
ZEN/COMFAIRALAMEDA
RUCLMHA/CNATRA
RUEDGGA/CNARESTRA
RUEOHRA/NAVAIRTECHSERVITAC PHILA
RUEDDOA/NAVAIRSYSCOM TECH REP WOODRIDGE
RUEDBUA/DCASO WOODRIDGE
RUEDHOA/NAVAIREWOR KFAC CUONPT

459 1/68

Coy MM

BT
UNCLAS

NAVAIRSYSCOMREPAC PAGE TO 331.

INVESTIGATION OF J65-W16A ENGINE 617041 FROM A-4A BUNO 137828

- A. YOUR 230213Z APR 68 (NOTAL)
- B. NAS LOS ALAMITOS 201745Z APR 68 (NOTAL)
- C. NAS LOS ALAMITOS AAR 3-68A
- D. FONECON D. BAKER NAVAIRSYSCOMREPAC AND C. DAMGAARD THIS FACILITY ON 30 APR 68

1. ENGINE COMPRESSOR AND TURBINE SECTION HAVE SEVERE EVIDENCE OF IN-FLIGHT FAILURE AND DAMAGE.
2. ENGINE SEVERELY DAMAGED AT IMPACT. EVIDENCE OF VERY LOW RPM AT TIME OF IMPACT.
3. RECOVERED ALL BUT NINE FIRST STAGE COMPRESSOR ROTOR BLADES 231817 (J65 PPC 26). ALL BLADES SHOW ROTATIONAL AND IMPACT DAMAGE. TWO FIRST STAGE BLADES HAD BLADE TIP BROKEN OFF APPROX 3 1/4 INCHES ABOVE BLADE PLATFORM. BLADE TIPS NOT RECOVERED. ONE BLADE EXHIBITS A POSSIBLE FATIGUE CONDITION. CAUSE OF THIS CONDITION UNDETERMINED. BROKEN BLADE WITH FATIGUE INDICATIONS FORWARDED TO CURTISS WRIGHT SERVICE ENGINEERING VIA LOREP. CURTISS WRIGHT AGREED TO FURTHER METALLURGICAL STUDY OF BROKEN BLADE. FIRST STAGE BLADES HAVE A TOTAL OPERATING TIME OF 68.1 HOURS.
4. ALL SECOND STAGE COMPRESSOR ROTOR BLADES 229155 AND THIRD STAGE 229156 RECOVERED. ALL BLADES HAVE ROTATIONAL AND IMPACT DAMAGE. NO BLADE FAILURE.
5. FOURTH, FIFTH, SIXTH, AND SEVENTH STAGE COMPRESSOR ROTOR BLADES DAMAGED AND BROKEN. APPROX 20 BLADES IN EACH STAGE BROKE AT THE PLATFORM. BELIEVED CAUSED BY IMPACT.
6. EIGHTH THRU THIRTEENTH STAGE COMPRESSOR ROTOR BLADES SEVERELY DAMAGED.
7. RECOVERED 20 SEVERELY DAMAGED INLET GUIDE VANES 223886, 28 VANES MISSING.
8. RECOVERED 31 SEVERELY DAMAGED FIRST STAGE COMPRESSOR STATOR VANES 222501, 25 MISSING.
9. RECOVERED 44 SEVERELY DAMAGED SECOND STAGE COMPRESSOR STATOR VANES, TWELVE MISSING.
10. LESS THAN ONE-THIRD OF COMPRESSOR CASE WAS RECOVERED. MOSTLY REAR PORTION. SCATTERED QUANTITIES OF AFT COMPRESSOR STATOR VANES RECOVERED.
11. ONE FRONT MAIN BEARING SUPPORT STRUT AND OIL PUMP RECOVERED FROM FRONT MAIN BEARING SUPPORT. THREE-FOURTHS OF FRONT MAIN BEARING SUPPORT MISSING.
12. ALL TURBINE ROTOR FIRST STAGE BLADES HAD BLADE TIPS BURNED OFF DUE TO OVER-TEMPERATURE CONDITION CAUSED BY OVERFUELING DUE TO DAMAGED COMPRESSOR.
13. ALL MAIN ENGINE BEARINGS WERE SATISFACTORY EXCEPT FOR IMPACT DAMAGE.
14. IAW REF D RECOMMEND NAVAIRSYSCOM TECH REP WOODRIDGE TAKE PARAGRAPH THREE FOR ACTION. CONDUCT METALLURGICAL STUDY OF BROKEN BLADE WITH FATIGUE CONDITIONS. UPON COMPLETION NOTIFY ALCON RESULTS OF FINDINGS UNDER YOUR CONTROL 2614-68. FORWARD BROKEN BLADE AND ANY BLADE SPECIMENS TO NAVAVNSAFECEN NORVA. ACCIDENT INVESTIGATION DIVISION, ATTENTION MR. T. ARMENTROUT.
15. CONCLUDE THAT REPORTED IN-FLIGHT EXPLOSION ORIGINATED IN FRONT OF COMPRESSOR IN AREA OF INLET GUIDE VANE AND FIRST STAGE COMPRESSOR ROTOR. CAUSE OF COMPRESSOR FAILURE UNDETERMINED. THREE POSSIBLE CAUSES ARE FOREIGN OBJECT DAMAGE, INLET GUIDE VANE OR CARRIER WING FAILURE, OR FIRST STAGE COMPRESSOR ROTOR BLADE FAILURE. METALLURGICAL INVESTIGATION OF BROKEN FIRST STAGE COMPRESSOR ROTOR BLADE AT CURTISS WRIGHT MAY ASSIST IN MORE POSITIVE CONCLUSIONS.
16. UNLESS INVESTIGATION AT CURTISS WRIGHT REVEALS POSITIVE FINDINGS, THIS WILL COMPLETE ACTION THIS FACILITY YOUR CONTROL 2614-68.

BT

012302

MESSAGE DRAFT

FORM 4462 (Rev 2/50)

CLASSIFICATION

UNCLASSIFIED

DATE: 29 APRIL 1968

FROM: NAVAL AVIATION
SAFETY CENTER

DRAWN BY: *[Signature]*
I. ASPLINTROUT

DEPT. A.I. *[Signature]*

RELEASED

ACTION

NARTU NAS LOS ALAMITOS

PRECEDENCE	
X	X

INFO

COMNAVAIRSYSCOMHQ

TEXT

UNCLAS E F T O

A4A BUNO 137828 ACCIDENT

1. WRECKAGE RELEASED TO SENIOR MEMBER OF BOARD.
2. INSTRUCTIONS CONTAINED IN OPNAVINST 3750.6F, PAGE 20, PARA 32D APPLY.

REFERENCE MESSAGE

TRANSIT BY RADIO ---	CLASS OF REF.	CWO	TOR COMM. OFFICE	DATE/TIME GROUP <i>291740Z</i>
-------------------------	---------------	-----	------------------	-----------------------------------

A-4A / 137828

*NARTU
LOS ALAMITOS*

4-17-68

NNNNZCZCNASCB410CZCSLA912
RITUZYUW RUWJMUAB713 1142213-UUUU--RUCILSA.
ZNR UUUUU

R 230213Z APR 68
FM NAVAIRSYSCOMREPAC
TO RUWJNVA/NAS LOS ALAMITOS
RUWMHVA/NAVAIREWORKFAC ALAMEDA
INFO RUEBBHS/NAVAIRSYSCOMHQ
ZEN2/NAF EL CENTRO
RUCILSA/NAVAIVNSAFCE
ZEN2/COMFAIRALAMEDA
ZEN2/CNATRA
ZEN2/CNARESTRA
ZEN1/COMNAVAIRPAC

B410/68

Cog m+m

BT

UNCLAS

~~AAA BUNO 137828 ACCIDENT INVEST~~

A. NAS LOS ALAMITOS 271745Z APR 68

B. COMNAVAIRPAC/BWFRRPAC INST 4730.8A

1. FROM CODE 3312, NAS LOS ALAMITOS: THIS CONFIRMS MY CONTROL
NR 2614-68 MENTIONED REF A.

2. NAVAIREWORKFAC ALAMEDA: REQ CONDUCT ENGRG ALAL J65W16A ENG
S/N 617041 AND SELECTED ACCESSORY ITEMS FROM SUBJ ACCIDENT IAW

PAGE TWO RUWJMUAB713 UNCLAS

REF B. ADCON RESULTS WITH TWO COPIES THIS CMD, CODE 331. ABOVE
CONTROL NR ASGD.

BT

AKL
230213Z

MNNMZCZCNASC6410CZCCLA91Z
RTTUZYUW RUWJKUA8713 1140213-UUUU--RUCILSA.
ZNR UUUUU
R 230213Z APR 68
FM NAVAIRSYSCOMREPAC
TO RUWJHVA/NAS LOS ALAMITOS
RUWMHVA/NAVAIREWORKFAC ALAMEDA
INFO RUEBBHB/NAVAIRSYSCOMHQ
ZEN2/NAF EL CENTRO
RUCILSA/NAVAIWSAFCEB
ZEN2/COMFAIRALAMEDA
ZEN2/CNATRA
ZEN2/CNARESTRA
ZEN1/CONNAVAIRPAC

3410/68

COG M+M

CORRECTED COPY

BT

UNCLAS

~~14A BUNO 137828 ACCIDENT INVEST~~

A. ~~NAS LOS ALAMITOS 261745~~ APR 68

B. CONNAVAIRPAC/BWFRFPAC INST 4732.8A

1. FROM CODE 3312, NAS LOS ALAMITOS: THIS CONFIRMS MY CONTROL NR 2614-68 MENTIONED REF A.

2. NAVAIREWORKFAC ALAMEDA: REQ CONDUCT ENGRS ALAL J65WISA ENG S/N 617041 AND SELECTED ACCESSORY ITEMS FROM SUBJ ACCIDENT IAW

PAGE TWO RUWJMUAB713 UNCLAS

REF B. ADCON RESULTS WITH TWO COPIES THIS CMD, CODE 331, ABOVE CONTROL NR ASGD.

BT

AKL

230213Z

XZCNASCB307SLA397
PTTUZYUW RUWJNVA0237 1111737-UUUU--RUCILSA.

ZNR UUUUU

P 201745Z APR 68

FM NAS LOSALAM

TO RUWJMUA/NAVAIRSYSCOMREPAC

INFO RUWMHVA/NARF ALAMEDA

RUWMHVA/COMFAIR ALAMEDA

RUWJMUA/COMNAVAIRPAC

RUEBBHB/NAVAIRSYSCOMHQ

RUCILSA/NAVAVSAFCEN

RUWJNTA/NAF EL CENTRO

RUCLMHA/CNATRA

RUEDGGA/CNARESTRA

BT

UNCLAS

PRIORITY FAILURE/MALFUNCTION INVESTIGATION

A. NAVAIRSYSCOMREPAC INST 4730.8A

B. TELECON 19 APRIL MR. BAKER YOUR COMMAND AND MR. ARMENTROUT OF NAVAVSAFCEN.

C. ~~NAS LOS ALAMITOS AAR 3-68A~~

1. REQUEST VERIFY PRIORITY (DIR) CONTROL NUMBER 26-14-68 ASSIGNED TO

~~A4A BUNO 137828.~~

2. ENGINE J-65W16A SERIAL 617041 AND SELECTED ACCESSORY ITEMS FROM

~~A4A BUNO 137828.~~

3. ENGINE TO BE DELIVERED TO NARF ALAMEDA ON 22 APRIL 68. ACCOMPANIED
BY NAVAVNSAFCEN INVESTIGATOR ARMENTROUT AND ENGINE/ACCESSORY LOGS
RECORDS.

BT

B 307/68

Copy: MAH

HPR

2017452

HEWZPHLFG QKMO I

PTTUZYUW RUWJNVA0218 1100010-UUUU--RUCILSA.

ZNR UUUUU
P 190040Z APR 68
FM NAS LOSALAM
TO RUEA AAA/CNO
RUCILSA/NAV AVNSAFECEN
INFO RUEBBH3/NAVAIRSYSCOMHC
RUWJHEA/COMELVEN
RUCLMHA/CNATRA
RUEDGGA/CNARESTRA
RUWJNDA/NAVPLANTIREPO LBEACH
RUEDDGA/NAVPLANTIREPO WOODRIDGE
RUWJNFA/COMREDATKCARAIRWING FOUR
RUWJNFA/COMREDATKCARAIRWING ONE TWO
RUHNBFA/CINCPACFLT
RUWJMUA/COMNAVAIRPAC
RUCILMA/COMNAVAIRLANT
RUHNFMA/FMFPAC
RUEBWA/FMFLANT
RUEBBHB/CHNAVMAT
RUWJMUA/NAVAIRSYSCOMREPAC
RUWJNTA/NAVAERORECFAC EL CENTRO
BT

355A/68

SUPP GAR

UNCLAS FOR OFFICIAL USE ONLY
SUPPLEMENTARY MESSAGE REPORT OF AIRCRAFT ACCIDENT
A. OPNAVINST 3750.6A
B. EL CENTRO 180420Z APR 68 NOTAL

1. 17 APR 68, 1520U, DAY
2. A-4A, 137823, NAS LOS ALAMITOS AAR 3-68A
3. 0800Z APR 68, 02 NM, FM IMPERIAL VORTAC (IMP)
4. (b) (6), LT, (b) (6), USNR, VA-773 STARP, GOLF
5. NONE
6. ALFA

Briefing shows Base 137828 verified by A.I. Investigator SWS. 4/19/68

PAGE TWO RUWJNVA0218 UNCLAS

7. LOW LEVEL NAVIGATION
8. ENGINE FAILURE - COLLISION - GROUND - UNCONTROLLED
9. MUFFLED ENGINE EXPLOSION FOLLOWED BY RAPID TPT RISE AND VIBRATION. ENGINE RAN ROUGH FOR ABOUT 5 MINS THEN FLAMED OUT
10. 5500 BKN, VIS UNLIMITED
11. UNKNOWN
12. DIR WILL BE REQUESTED, ON ENGINE J-65W16A, S/N W617041, FUEL CONTROL S/N H157973 AND RELATED ACCESSORIES
13. NO CHANGE
14. NONE
15. NO PRIVATE PROPERTY INVOLVED. CRASH SITE IN REMOTE UNPOPULATED AREA NE SECTION ANZA BORREGO DESERT STATE PARK, CALIFORNIA.
16. W B MILLS, LCDR, AVIATION SAFETY OFFICER/SR. MBR AAR 8D.

698-3478 EXT 412 137828

BT

A-4A ~~137828~~ NAS Los Alamitos 3-68A 4-17-68

190040Z

MESSAGE DRAFT
 SND 4-12 (Rev 2-63)

CLASSIFICATION
 UNCLASSIFIED

DATE: 18 APRIL 1968

FROM: NAVAL AVIATION SAFETY CENTER
 DRAFTED BY: Lcdr (b) (6)
 DEPT. ID: Lcdr (b) (6)
 RELEASED BY: Lcdr (b) (6)
 OOD

ACTION

NAS LOS ALAMITOS
 ATKRON SEVEN SEVEN THREE

V	PRECEDENCE	V
	Mail	
	Night Message	
	Routine	
X	Priority	Y
	Op. Immed.	
	Exec.	
	Flash	

INFO

CNO
 NAVAIRSYSCOMEIQ
 NAVAIRSYSCOMREPPAC
 COMNAVAIRPAC
 CNARESTRA
 NAVAIRSYSCOMREPO LONG BEACH
 DCASO WOODRIDGE

TEXT

UNCLAS E F T O

~~AAA BUNO 137828 ACCIDENT~~

1. MR. TERRY M. ARMSTRONG, AIR SAFETY SPECIALIST, CLEARED TOP SECRET, WILL ARRIVE SAN DIEGO VIA UNITED AIR LINES FLT 103 AT 1307, 18 APRIL 1968, TO CONDUCT NAVAVNSAFECEN INVESTIGATION OF SUBJECT ACCIDENT.
2. INSTRUCTIONS CONTAINED IN OPNAVINST 3750.6F, PAGE 14, PARA 24 B, AND PAGE 20, PARA 32A, (PRESERVATION OF WRECKAGE) APPLY.

REFERENCE MESSAGE

TRANSMIT BY RADIO —	CLASS OF REF.	CWO	TOR COMB. OFFICE	DATE/TIME GROUP 181215Z
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86417104

RMQNASC3146B356
PTTUZYUW RUWJNTA3251 1090415-UUUU--RUCILSA.
ZNR UUUUU
P R 180420Z APR 68
FM NAF EL CENTRO
TO RUENAAA/CNO
RUCILSA/NAVAVNSAFCE
RUEBBHB/NAVAIRSYSCOM
RUWJNVA/NAS LOS ALAMITOS
RUWJAPA/COMFAIRMIRAMAR
INFO RUWJHEA/COMLEVEN
RUWJNVA/CO ATKRON SEVEN SEVEN THREE
RUEDGGA/CNARESTRA
RUWJMUA/CONNAVAIRPAC
RUEBBHB/CHNAV.MAT
RUMHBRA/CINCPACFLT
BT

146 B / 68

AAR
ALFA

UNCLAS FOR OFFICIAL USE ONLY
NAVY PRELIMINARY MESSAGE REPORT OF AIRCRAFT ACCIDENT

- A. OPNAVINST 3750.6F
1. 171520U APR, DAY
2. 285 DEG/47NM IMPERIAL VORTAC; 891 DEG/13NM JULIAN VORTAC
3. A4-A, BUNO 137828

Correct Buno # per AI Investigator 4/19/68

PAGE TWO RUWJNTA3251 UNCLAS

4. NAS LOS ALAMITOS
5. ALFA DUE TO IMPACT
6. (b) (6) P. LT., (b) (6) NAVY, 1315, RESERVE, G
PILOT EXPERIENCE: TOTAL TIME 1500 HRS, 1100 HRS IN TYPE, 30 HRS
LAST 90 DAYS, RAPEC, ALT 4000, 250 KTS
7. NA
8. NA
9. LOW LEVEL NAV
10. RETURNING TO NAS LOS ALAMITOS
11. ONE (1) ENG EXPLOSION FOLLOWED BY HIGH EGT FOLLOWED FOUR
(4) MINS LATER BY ANOTHER EXPLOSION AND FLAMEOUT
12. 8000 SCTD
13. ENGINE FAILURE
14. UNKNOWN
15. NA
16. ACCESSIBLE BY US HWY 78
17. LCDR (b) (6) NAS LOS ALAMITOS EXT 412
BT

86417164 APR
180420Z

A-4A / 137828 NAS Los Alamitos (unk) 4-17-68